DOCUMENT RESUME

ED 027 410

VT 007 803

Eastern Iowa Community College Occupational Survey. A Study of the Needs for Post-High School Education in the Eastern Iowa Community College District.

Eastern Iowa Community Coll., Bettendorf. Citizens' Advisory Committee.

Pub Date Jan 68

Note-158p.

EDRS Price MF-$0.75 HC-$8.00

Descriptors-Aspiration, *Community Colleges, Educational Interest, *Educational Needs, Employer Attitudes, Employment Opportunities, Evaluation, *Occupational Surveys, Parent Attitudes, Post Secondary Education, Student Attitudes, *Technical Education, Vocational Education

Identifiers-*Eastern Iowa Community College District

An in-depth study of a five-county area included in the Eastern Iowa Community College district yielded the following findings: (1) Nearly one-third of all youth without plans for college were in a general curriculum (2) Youth plans for college were found to be related to family economic status, stability of home life, level of parents' education, and parents' attitude toward youth continuing in school, (3) Of respondents having no further education beyond high school, 22 percent of the men had taken no vocational education to prepare for a job, (4) Employers almost never employ high school dropouts, (5) Financial reasons and inability to make good enough grades were reasons of most importance given by over half of all seniors who did not plan college attendance, (6) 56 percent felt they received some but not very much help, or little help in making educational plans or occupational choices, (7) Fields of advanced study of interest to seniors revealed needs for preprofessional or technical programs in 10 areas, (8) Parents of fifth grade children expressed interest for their children obtaining advanced education in 11 technical areas, and (9) Areas in which employers indicated the greatest need for job up-grading training were supervisory training, blueprint reading, business, mathematics and mechanics. (DM)

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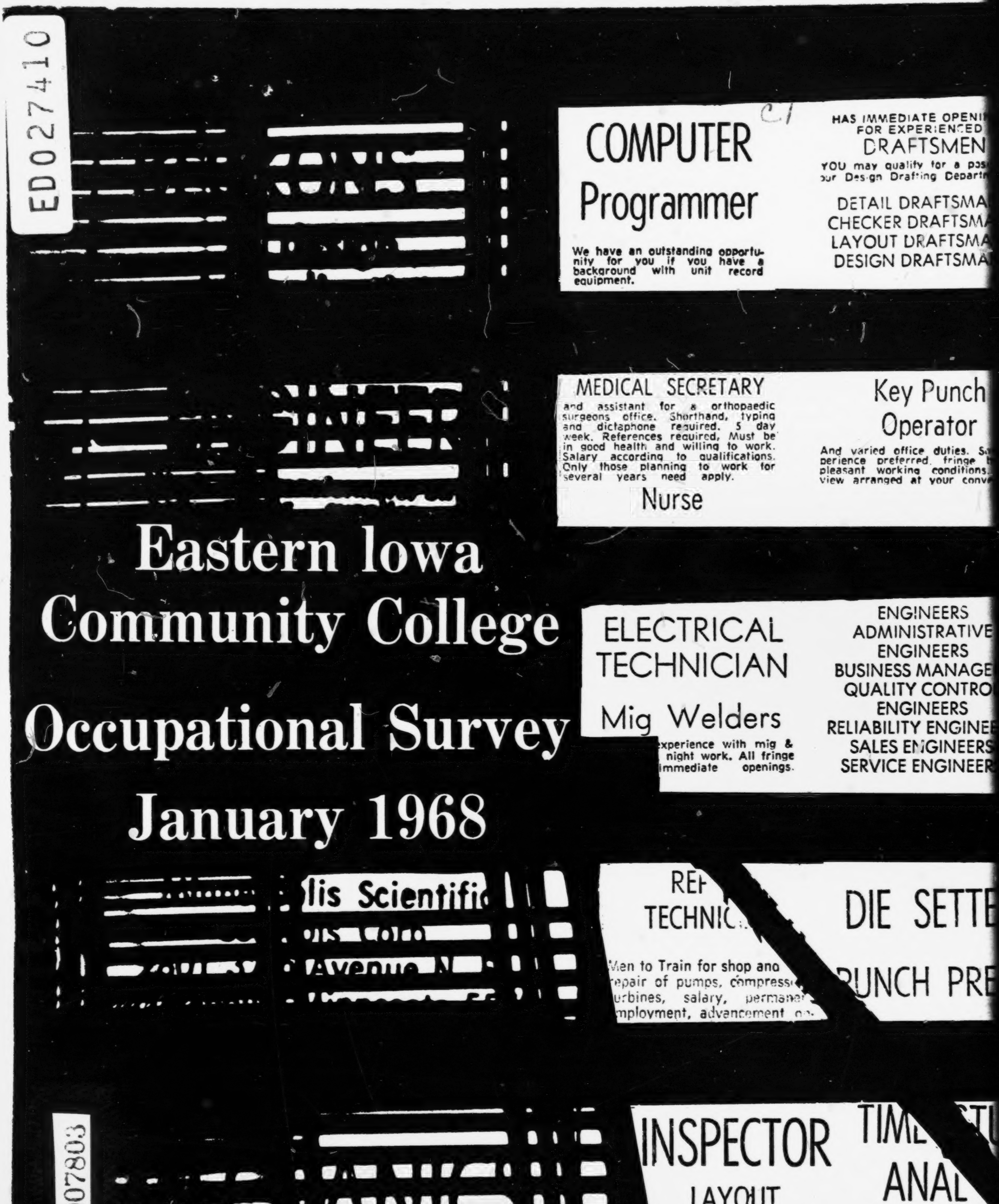
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Eastern Iowa Community College

Occupational Survey

January 1968

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EASTERN IOWA COMMUNITY COLLEGE OCCUPATIONAL SURVEY

A Study of the Needs for Post-High School Education in the Eastern Iowa Community College District

A Report Prepared for the
Board of Directors
of
Eastern Iowa Community College
by the
Citizens' Advisory Committees

3 Eastern Iowa Community College
Bettendorf, Iowa
January, 1968

EASTERN IOWA COMMUNITY COLLEGE
OCCUPATIONAL SURVEY

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Mr. Ed Sheldon

FOREWORD

The results from this post-high school educational survey are brought to your attention as a joint study of Eastern Iowa Community College and Black Hawk College. This study with emphasis upon vocational-technical, college parallel, and adult educational programs is believed to be the first comprehensive, regional occupational study in the United States.

Dr Raymond J. Young, Professor of Higher Education at the University of Michigan and Community College Consultant, was employed by Eastern Iowa Community College's Board of Directors to conduct and aid the local director in analyzing the results of this study.

Gerald D. Clemmensen directed the study for Eastern Iowa Community College. His efforts in conducting the work of the citizens' committees, and handling the distribution and retrieval of the questionnaires with emphasis on correlating this information for our purposes were an essential contribution to this study.

Special thanks are extended to the members of the citizens' advisory committees who gave willingly of their time and effort in obtaining information from the various people in business and industry; from the multitude of parents; and from perhaps the most important part of our community, the potential students for whom our colleges were established.

It is our sincere hope that the results of this survey will not only benefit our immediate communities by establishing a better, more complete curriculum; but aid other communities in establishing programs in post-high school education.

Robert W. Johnson

Dr. Robert W. Johnson
Superintendent
Eastern Iowa Community College

ACKNOWLEDGEMENT

The implementation of procedures for modifying and field testing, data collection instruments with the assistance of citizens' committees and educators, the calculations of enrollment projections, the collection of data and their preparation for processing, and the review of preliminary manuscripts with citizens' committees for suggestions and modifications were done under the direction of Gerald D. Clemmensen, who served as local director.

Acknowledgement and gratitude are expressed to the various survey committee members, especially the chairmen and secretaries, for their time and assistance in helping collect necessary information. Appreciation is expressed to all school administrators and counselors who assisted in the refinement of data gathering instruments, arranged school schedules for their use, and assisted in obtaining information. Gratitude is expressed to all managers and executives of industries, businesses, and governmental agencies who cooperated in the survey. Members of the medical, dental, and legal professional associations cooperating also are due acknowledgement and thanks for their contributions. Sincere appreciation is expressed to Dr. Robert W. Johnson, Superintendent of Eastern Iowa Community College, for his assistance, interest, and patience in seeing the study to a successful conclusion.

Raymond J. Young
Raymond J. Young
Director

ACKNOWLEDGEMENT

The general design, direction, and plan for this study, the data gathering instruments used to collect information, data processing, analyses, and interpretation, and the preliminary writing and final editing of the report were provided by Dr. Raymond J. Young, Professor of Higher Education at the University of Michigan and Community College Consultant.

The Occupational Survey has reached a successful conclusion that was possible only through the unflagging interest and support of the Citizens' Advisory Committees; the faithful assistance of Mrs. Connie Wacker and Miss Patricia Nielsen; the educated guidance of Dr. Raymond J. Young; the confidence of Dr. Robert W. Johnson.

This expression would not be complete without mention of those persons who performed the innumerable behind-the-scenes tasks of circulation, compilation, tabulation, etc., associated with a project of this scope.

To these people go my sincere gratitude.

Gerald D. Clemmensen

Gerald D. Clemmensen
Local Director

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CHAPTER I

COMMUNITY CHARACTERISTICS

Introduction. In 1965, the Iowa State Legislature provided for the establishment of a system of area community colleges and vocational-technical schools to provide expanded opportunities to ALL Iowans. Most of the fifteen established area schools are presently in the process of organizing area community colleges, although some have initially concentrated on developing vocational-technical schools. At at time when people with advanced skills and education are in great demand, the area schools have been created to provide opportunities to meet these demands.

The Eastern Iowa Community College was approved by the State Department of Public Instruction on March 18, 1966. This college is a merged area of the county school systems of Clinton, Scott and Muscatine Counties, together with the Durant Community School District and the Bennett Community School District of the county school system of Cedar County and the Louisa-Muscatine Community School District of the county school system of Louisa County.

The purpose, therefore, of such an occupational survey of the area was to lead to a better understanding of the present and future needs of its citizens and in turn how Eastern Iowa Community College might best help to meet these needs.

As part of the total study, individuals from various parts of the area investigated the background of development and the present characteristics of their respective areas of residence. This chapter draws upon these studies to present a verbal picture of this background and present characteristics of the area served by the Eastern Iowa Community College. A study was made of the history, population characteristics, basic social services, educational system, and economic base of the area.

General Description of the Area. With its administrative offices presently located in Bettendorf, Iowa, Eastern Iowa Community College is made up of three campuses; Scott, Clinton and Muscatine. Scott Campus is located in the Davenport-Bettendorf area and has five attendance centers. The Clinton Campus is located in Clinton, Iowa, and three attendance centers and the Muscatine Campus is in Muscatine, Iowa, with one attendance center.

Although Eastern Iowa Community College serves the counties of Clinton, Scott, Muscatine, Cedar and Louisa, this study will concern itself mainly with the communities in which the three campuses are based.

The Quad-City Community. The Quad-City community is located on either side of the Mississippi River some 175 miles southwest of Chicago, Illinois. The four cities referred to in the Quad-City term are Rock Island, Moline, East Moline in Illinois and Davenport in Iowa. Actually eight cities and villages comprise the community. In addition to those mentioned, there are Bettendorf and Riverdale on the Iowa side and Silvis and Milan on the Illinois side. The Iowa cities lie in an east-west line, with the border of one city also being the border of the next. The same is true of the communities in Illinois.

These eight cities form a metropolitan community of about 225,000 persons, 100,000 on the Iowa side of the river and about 125,000 living on the Illinois side. The community is considered a single metropolitan center. Approximately half of those who are employed work in a city other than one in which they live, and a large percentage of those living in Iowa work in Illinois and vice versa.

Surrounding the metropolitan Quad-Cities are a number of villages, whose majority of residents are a vital working part of the Quad-Cities, however, this part of the survey will concern itself mainly with the Davenport-Bettendorf area in which the Scott Campus of Eastern Iowa Community College is presently located.

Davenport-Bettendorf. Davenport is the county seat of Scott County and is located on the north bank of the Mississippi River and is 170 miles west of Chicago, Illinois. It is situated in the heart of the greatest agricultural center of the country. Here, where the Mississippi River forms the boundary between Iowa and Illinois, the flow of the river is from the east to the west although the normal course is from the north to the south.

Today, Bettendorf is the second largest city in Scott County. It is located on the southeast border of the state on the Mississippi River and is 170 miles from Chicago. Federal Highway #6 and #67 intersect the city. Interstate #80 enters Iowa from the east approximately 15 miles northeast of Bettendorf and by-passes the city seven miles to the north for fast routes to the east and west coasts.

Clinton. The city of Clinton, county seat of Clinton County, is located in the extreme eastern-most part of Iowa approximately 138 miles directly west of Chicago on the Mississippi River and the Lincoln Highway (U.S. 30). Clinton is surrounded by one of the most fertile agricultural sections of the world, producing corn, soybeans and other small grains, hogs and cattle in large quantities. The city itself covers 8,081 acres or approximately 12.6 square miles. Clinton County covers 695 square miles. Since 1958 more than 951 acres have been annexed to the city.

Muscatine. Muscatine, the southern-most host city of the three campuses, is also located on the Mississippi River. It is the county seat of Muscatine County.

PART I

General Historical Background

Early History of Davenport-Bettendorf. The region around Davenport, first settled in 1808, was the scene of bitter conflicts with the Indians. Under the terms of the early treaties with the Indians, it was agreed that the Sacs should continue to occupy their villages until such times as the land was surveyed and sold to the whites. The encroachment in this area by the white men was distinctly distasteful to the Indians, and in 1823, when the government agent at Fort Armstrong advised the Indians to move westward, Chief Black Hawk and some of his people refused. Cruel white aggression lead to bad feelings between Black Hawk's people and whites, resulting in the burning of Sac villages, murder, bloodshed and war.

Black Hawk's people were killed, wounded and scattered, and he was finally captured and returned to Fort Armstrong in the fall of 1832. On September 30, 1832, a treaty was concluded with Black Hawk which resulted in the acquisition by the United States of 6,000,000 acres of land west of the Mississippi known in history as the Black Hawk Purchase. This treaty was signed at a point near 5th Street and Pershing Avenue, in what is now the city of Davenport.

In 1833, one of two claims was made upon lands occupied by the lower part of the present city and lying west of the reserve owned by LeClaire. Antoine LeClaire settled this problem by buying out the claimants, paying $100 for a quarter-section bounded roughly by the present Harrison Street on the east, Warren Street on the west and 7th Street on the north. In the fall of 1835, a group of men met at the home of Col. George Davenport on Rock Island (Arsenal) and agreed to form a company to survey a town. It was this area, purchased by LeClaire for $100, that was sold to the company for $2,000 and surveyed for the town of Davenport in the spring of 1836.

Immigration to the new city of Davenport was small in the first year, only a half dozen families coming. The first hotel was erected by Antoine LeClaire and George Davenport. Lumber for the first Davenport buildings came from Cincinnati by water, as did most other merchandise and materials. The first ferry was hand-operated and was started in 1837.

Davenport was incorporated as a town in 1839, and as a city in 1851. In 1853, the first bridge to span the Mississippi River was started, and in 1856 was opened to traffic.

The Wisconsin Legislature, meeting at Burlington in December, 1837, authorized the creation of Scott County, named in honor of Gen. Winfield Scott, who concluded the treaty here. There followed a great contest between the enterprising town of Rockingham, five miles down the river, which had been surveyed in the meantime and Davenport, for the honor of the county seat. The contest was finally won by Davenport, with the aid of imported rough and tough voters, and Rockingham, though prosperous for some years, was ultimately absorbed by the growing city of Davenport.

The city of Bettendorf lies in the area of the original Wisconsin Territory and was purchased from the Sac and Fox Indians in the Black Hawk Purchase of 1832. The first white settlers established a village known as Lilienthal. Later the village of Gilbertown developed alongside Lilienthal. All of the municipalities in the present metropolitan area have grown up together. In 1900, W. J. Bettendorf purchased 70 acres of land in Gilbertown and moved his axle business from Davenport. The towns prospered and in recognition of Mr. Bettendorf's great help to the people, the name was changed and the towns were incorporated as a city in 1902 with a population of 440.

Early History of Clinton. The first settler in Clinton was Elijah Buell. He settled in this area, now known as Clinton, as the best location for a ferry to accommodate the many people on their way west. However, the first claim was made by John Bartlett. Clinton at that time was called New York. He laid out plans for a town and sold lots. In 1836, he sold the land to Captain Pearce. In 1855, the Iowa Land Company acquired the site and replatted it, naming it for DeWitt Clinton, one-time governor of the State of New York.

During the winter of 1855-56, Isaac Baldwin taught the first school in a log cabin to 30 pupils. In 1856, the Herald, the town's first newspaper, was published. A post office was established that year and a hotel built. A bank was established in 1857 by D. W. Dakin, afterwards becoming the Clinton National Bank. The first church was the St. John's Espicopal, organized in 1859.

The first of Clinton's many sawmills was built in the spring of 1856 by Charles Lombard. It had a capacity of 5,000 feet of lumber per day. Soon there were many sawmills along the river handling the lumber rafts floated down the river from the north. The city grew rapidly with this industry. In the early 1880's, Clinton was recognized as the largest lumber producing city in the world.

Clinton was incorporated as a city in 1859 and was reincorporated in 1881. It became the county seat of Clinton County in 1859. Ringwood was annexed in 1878; Chancy was annexed in 1892; and Lyons in 1895.

Early History of Muscatine.. French explorers were the first to reach this area, but it was not until 1832 that the first permanent settlement was made in the name of Bloomington. In 1849, the original name was changed to Muscatine. The name of Muscatine was derived from the Musquitine Indians already living along the river. The city was formally incorporated by a special act of the legislature in 1851, and still operates under that special charter.

In the course of history, the city has been characterized by three industrial eras. The first started in 1860, consisted of logging and later sash and door manufacturing. The second in 1890, introduced the manufacture of pearl buttons from mussell shells taken from the Mississippi River. Today finds Muscatine in its third era with more than 55 diversified industries.

PART II

Population Characteristics

The population of the Eastern Iowa Community College District was 207,967, approximately eight percent of the state's population in 1960. The density per square mile varied from 77.1 in Muscatine to 262.8 in Scott County, with an average of 139.7 for the area.

In the thirty years that have transpired since 1937, Davenport has made giant strides in its development. The population has increased from 66,039 in 1940 to 95,781 in 1966, one of the four most spectacular gains made by major cities in the state. This burgeoning population is contained within 61 square miles, an area greater than San Francisco.

Since 1950, Bettendorf's population has increased from 5,132 to nearly 15,000 with 2,000 new homes built since then. Bettendorf is the fastest growing city in the state. It increased 125% in population between 1950 and 1960, and its assessed valuation more than tripled during the past 12 years. Bettendorf also has the highest ($7,691) per family income in the state.

The official 1950 Census of the United States lists the population of Clinton as 30,379 which represents a 15.6% increase over the 1940 figure. The 1960 census lists the city population at 33,589, a 10.6% increase over 1950. The December 31, 1965, estimate of population is 35,000.

In 1950, the U. S. Census listed a population of 19,483 in Muscatine and in 1960 the Census reported 20,997.

TABLE 1

AREA AND POPULATION OF DISTRICT 1960 and 1950*

	CLINTON	MUSCATINE	SCOTT	DISTRICT TOTAL
Land area in Sq. Miles, 1960	695	439	453	1,587
1960 population:				
Total: Number	55,060	33,840	119,067	207,967
Per square mile	79.2	77.1	262.8	139.7
Urban: Total	36,813	20,997	101,018	158,828
% of total population	66.9	62.0	84.8	
Urbanized areas			101,018	101,018
Other urban territory	36,813	20,997		57,810
Rural: Total	18,247	12,843	18,049	49,139
Places of 1000 to 2500	2,225	3,792	2,636	8,653
Other rural territory	16,022	9,051	15,413	40,486
1950 population:				
Total	49,664	32,148	100,698	182,510
Urban	33,023	19,041	81,837	133,901
Rural	16,641	13,107	18,861	48,609
% Increase 1950 to 1960:				
Total	10.9	5.3	18.2	
Urban	11.5	10.3	23.4	
Rural	9.7	-2.0	-4.3	

*SOURCE: PC(1), 17A, Iowa -- Table 6

TABLE 2

PROJECTED POPULATION DENSITY BY COUNTY AND YEAR FOR THE DISTRICT

COUNTY	LAND AREA SQ. MI.	1950	1960	1965	1970	1975	1980
Clinton	695	71.5	79.2	81.5	85.5	89.1	94.8
Muscatine	439	73.2	77.1	77.7	79.5	80.9	83.6
Scott	453	222.3	262.8	282.0	310.0	342.1	385.9
TOTAL	1,587						

TABLE 3

AREA AND POPULATION OF COUNTIES IN DISTRICT

COUNTY	AREA IN SQ. MI.	POPULATION	PERCENT CHANGE
Clinton	695	55,060	+10.9
Muscatine	439	33,840	+ 5.3
Scott	453	119,067	+18.2
TOTAL	1,587	207,967	

TABLE 4

AGES OF ALL PERSONS LIVING IN DISTRICT, 1960

	CLINTON	MUSCATINE	SCOTT	DISTRICT TOTAL
Under 5 years	6266	3787	14368	24421
5 - 9 years	5806	3365	12875	22046
10 -14 years	5208	3136	11061	19405
15 -19 years	3919	2398	8249	14566
20 -24 years	2631	1847	7197	11675
25 -29 years	2892	1803	7312	13007
30 -34 years	3263	1968	7782	12993
35 -39 years	3516	2017	7948	13481
40 -44 years	3435	2045	7245	12725
45 -49 years	3353	1914	6836	12103
50 -54 years	2997	1761	6255	11013
55 -59 years	2881	1687	5441	10009
60 -64 years	2659	1575	4853	9087
65 -69 years	2355	1561	4312	8228
70 -74 years	1785	1293	3315	6393
75 -79 years	1143	876	2123	4142
80 -84 years	595	487	1173	2255
85 and over	376	320	722	1418
Under 18 years	19920	11879	43369	76168
65 and Over	6254	4537	11645	22436
Median Age	31.2	31.5	29.0	

TABLE 5

PROJECTED POPULATION BY AGE GROUPS, 1960-1980
CLINTON COUNTY

AGES	1960	1965	1970	1975	1980
0-4	6266	6390	6969	7790	8604
5-9	5806	5582	5692	6208	6939
S.T. 0-9	12072	11972	12661	13998	15543
S.T. 10-14	5208	5515	6274	5406	6978
15-19	3919	4431	5224	5338	5121
20-24	2631	3762	3654	5014	4402
S.T. 15-24	6550	8193	8878	10352	9523
25-29	2892	2701	3604	3751	4804
30-34	3243	2894	2771	3607	3848
35-39	3516	3217	2897	2749	3610
40-44	3435	3446	3191	2840	2727
S.T. 25-44	13086	12258	12463	12947	14989
45-49	3353	3348	3377	3110	2782
50-54	2997	3210	3261	3233	3029
55-59	2881	2810	3067	3058	3089
60-64	2659	2608	2624	2777	2855
S.T. 45-64	11890	11976	12329	12178	11755
65-69	2355	2322	2336	2291	2487
70-74	1785	1888	1984	1872	1958
75+	2114	2485	2491	2853	2638
S.T. 65+	6254	6695	6811	7016	7083
75-79	1143	1280	1420	1424	1409
80-84	595	680	776	844	863
85-90	276	330	216	429	269
90-95	84	144	66	115	82
95-100	14	43	11	34	13
100-105	2	7	2	6	2
105-110	0	1	0	1	0
S.T. 85+	376	525	295	585	366
TOTAL	55060	56609	59416	61897	65871

TABLE 6

PROJECTED POPULATION BY AGE GROUPS, 1960-1980
MUSCATINE COUNTY

AGES	1960	1965	1970	1975	1980
0-4	3787	3821	4024	4314	4600
5-9	3365	3226	3255	3428	3675
S.T.0-9	7152	7047	7279	7742	8275
S.T.10-14	3136	3128	3542	3026	3764
15-19	2398	2750	2890	3106	2796
20-24	1847	2204	2364	2657	2670
S.T.14-25	4245	4954	5254	5763	5466
25-29	1803	1848	2011	2364	2424
30-34	1968	1706	1848	1904	2365
35-39	2017	1910	1610	1794	1796
40-44	2045	1922	1853	1534	1740
S.T.25-44	7833	7386	7322	7596	8325
45-49	1914	1944	1827	1762	1458
50-54	1761	1822	1843	1738	1670
55-59	1687	1629	1729	1705	1650
60-64	1575	1576	1497	1616	1567
S.T.45-64	6937	6971	6896	6821	6345
65-69	1561	1434	1466	1363	1502
70-74	1293	1260	1293	1184	1229
75+	1683	1924	1830	2009	1795
S.T.65+	4537	4618	4589	4556	4526
75-79	876	963	959	963	901
80-84	487	526	633	576	633
85-90	235	270	175	346	192
90-95	71	122	53	92	58
95-100	12	36	9	28	9
100-105	2	6	1	4	2
105-110	0	1	0	0	0
S.T. 85+	320	435	238	470	261
TOTAL	33840	34104	34882	35504	36701

TABLE 7

PROJECTED POPULATION BY AGE GROUPS, 1960-1980
SCOTT COUNTY

AGES	1960	1965	1970	1975	1980
0-4	14368	15347	17994	21589	25475
5-9	12875	12954	13836	16223	19463
S.T.0-9	27243	28301	31830	37812	44938
S.T.10-14	11061	12872	14372	13834	17999
15-19	8249	11394	12870	14804	13831
20-24	7197	8936	11726	13942	15236
S.T.15-24	15446	20330	24596	28746	29067
25-29	7312	7282	9623	11864	15014
30-34	7782	7198	7367	9474	12003
35-39	7948	7658	7085	7250	9324
40-44	7245	7676	7534	6843	7132
S.T.25-44	30287	29814	31609	35431	43473
45-49	6836	6932	7405	7208	6601
50-54	6255	6520	6619	7063	6883
55-59	5441	5684	6205	6016	6721
60-64	4853	4866	5114	5548	5412
S.T.45-64	23385	24002	25343	25835	25617
65-69	4312	4230	4290	4458	4892
70-74	3315	3450	3607	3432	3801
75+	4018	4752	4762	5407	5020
S.T.65+	11645	12432	12659	13297	13713
75-79	2123	2441	2587	2656	2574
80-84	1173	1284	1567	1566	1705
85-90	531	654	446	866	545
90-95	161	276	136	236	165
95-100	26	82	22	70	27
100-105	4	13	4	11	4
105-110	0	2	0	2	0
S.T.85+	722	1027	608	1185	741
TOTAL	119067	127751	140409	154955	174807

PART III

Economic Base

The aspirations of a community for its youth may be conditioned by the nature of how adults, including parents, earn a living, the skill level competencies necessary and the opportunities available. The support which people will give to programs of education is related to the economic vigor which characterizes an area. This part of the study concerns itself with how people earn a living.

How People Earn a Living. The total gainful workers in Scott County are 46,640. The total payroll is approximately $227,400,000 annually. There are 154 manufacturing establishments, employing 15,270 workers paying wages of $96,916,552 (1965) annually, and having products valued at approximately $170,000,000 annually. The retail area has a radius of 50 miles and population of 564,900; the wholesale area, a radius of 100 miles, and population of nearly 2,200,000.

Davenport's position in the great farming area of the Middle West has resulted in the establishment of a complete and modern system of commodity distribution through dozens of wholesale and jobbing houses and hundreds of retail stores, which bring the products of the world to the people and to consumers who live and work in or near Davenport.

According to the 1960 U. S. Census of Business, there were located in Davenport, 792 retail stores, including 119 food stores, 49 apparel stores, 28 automotive agencies, 91 filling stations, 53 furniture and household stores, 31 lumber, building and hardware firms. There were 216 eating and drinking places, 28 drug stores and over 225 miscellaneous shops. The total sales of these stores were over $179,669,350 as of December, 1965, according to the Iowa State Tax Commission.

Davenport has 204 wholesale distributors, including manufacturers' sales branches, agents and brokers. Total sales of these firms are nearly $165,000,000 annually.

Bettendorf, often called the "bedroom city" of the Quad-Cities, has its own abundance of retailers, 150, featuring every type of service and product to serve its citizens. Many new light manufacturing operations have come into being, and existing plants and businesses have expanded their operations in keeping with the rapid growth in population, manufacturing and general business activities.

The city of Clinton has 347 retail outlets employing 2,163 people and serving approximately 30,000 people within a radius of forty miles. The total retail sales for the fiscal year ending June 30, 1965, were $58,767,841. Seventy-eight industries employ 6,921 with annual wages approximately $41,944,738.

Muscatine has more than 55 diversified industries, with pearl buttons being one of the most unusual in its historical origin in the city. The area south of Muscatine, known as Muscatine Island, produces large quantities of cantaloupe, watermelon, tomatoes and such due to its rich sandy soil.

TABLE 8

OCCUPATION GROUP AND CLASS OF WORKER OF EMPLOYED PERSONS BY SEX, FOR CLINTON, MUSCATINE, AND SCOTT COUNTIES

Occupation	District Total	State Total
Male, Employed	54,100	710,684
Professional, Technical, and Kindred Workers	4,771	54,435
Engineers, Technical	1,049	6,859
Medical & Other Health Workers: Salaried	140	2,518
Self-Empl.	467	5,751
Teachers, Elementary & Secondary Schools	486	7,083
Other Professional, Etc.: Salaried	2,236	27,636
Self-Employed	397	4,588
Farmers and Farm Managers	4,859	153,470
Manager, Officials, & Propr's., Exc. Farm	5,346	68,814
Salaried	3,443	
Self-Employed: Retail Trade	914	16,119
Other than Retail Trade	926	12,939
Clerical and Kindred Workers	3,342	36,113
Sales Workers	3,784	46,691
Retail Trade	1,412	20,896
Other than Retail Trade	2,372	25,795
Craftsmen, Foremen, and Kindred	10,661	110,424
Construction Craftsmen	2,658	33,532
Foremen (N.E.C.)	1,744	13,443
Mechanics and Repairmen	2,803	31,870
Metal Craftsmen, Except Mechanics	1,506	10,375
Other Craftsmen	1,950	21,204
Operatives and Kindred Workers	11,639	115,183
Drivers and Deliverymen	2,609	37,162
Other Operatives, Etc.: Dur. Goods Mfg.	4,918	30,882
Nondur. Goods Mfg.	2,333	21,410
Nonmfg. Industries	1,779	25,729
Private Household Workers	35	340
Service Workers, Except Private Household	2,523	31,534
Protective Service Workers	565	5,957
Waiters, Bartenders, Cooks, & Counter Wkrs.	443	5,376
Other Service Workers	1,517	20,201
Farm Laborers and Farm Foremen	1,466	35,861
Laborers, Except Farm and Mine	3,500	39,372
Construction	496	8,087
Manufacturing	1,623	11,871
Other Industries	1,381	19,414
Occupation Not Reported	2,174	

TABLE 9

OCCUPATION GROUP AND CLASS OF WORKER OF EMPLOYED PERSONS BY SEX, FOR CLINTON, MUSCATINE, AND SCOTT COUNTIES

Occupation	District Total	State Total
Females, Employed	24,302	308,318
Professional, Technical and Kindred Workers	2,974	44,900
Medical & Other Health Workers: Salaried	844	11,446
Self-Empl.	88	751
Teachers, Elementary & Secondary Schools	1,374	20,876
Other Professional, Etc.: Salaried	737	9,916
Self-Employed	131	11,911
Farmers and Farm Managers	112	4,690
Manager, Officials, & Propr's., Exc. Farm	861	10,203
Salaried	565	5,734
Self-Employed: Retail Trade	192	2,934
Other than Retail Trade	104	1,535
Clerical and Kindred Workers	7,397	87,143
Secretaries, Stenographers, and Typists	2,300	26,186
Other Clerical Workers	5,097	60,975
Sales Workers	2,353	27,051
Retail Trade	2,074	24,336
Other than Retail Trade	279	2,715
Craftsmen, Foremen, and Kindred Workers	280	3,222
Operatives and Kindred Workers	2,013	30,636
Durable Goods Manufacturing	954	9,456
Nondurable Goods Manufacturing	1,249	10,711
Nonmanufacturing Industries	840	10,466
Private Household Workers	1,288	20,961
Service Workers, Except Private Household	4,191	55,766
Waiters, Bartenders, Cooks, & Counter Wkrs.	1,907	26,933
Other Service Workers	2,284	28,833
Farm Laborers and Farm Foremen	367	10,630
Laborers, Except Farm and Mine	161	1,511
Occupation Not Reported	1,105	

TABLE 10

INDUSTRY GROUP OF EMPLOYED IN DISTRICT, 1960*

	CLINTON	MUSCATINE	SCOTT	TOTAL
Both Sexes	20,161	12,612	45,629	78,402
Agriculture	2,859	1,768	2,438	7,065
Forestry & Fisheries	12	9	12	33
Mining	23	49	48	120
Construction	867	559	2,204	3,630
Manufacturing	6,423	3,914	14,641	24,978
Furniture, Lumber & Wood Products	588	763	340	1,691
Primary Metal Industries	325	218	2,617	3,160
Fabric'd Metal Ind. (Inc. Not Spec. Mfg.)	535	195	2,222	2,952
Machinery, Exc. Electrical	588	484	3,543	4,615
Electrical Mach., Equip. & Supplies	178	8	291	477
Motor Vehicles & Motor Vehicle Equip.	9	-	61	70
Transportation Equip. Exc. Motor Vehicle	8	8	64	80
Other Durable Goods	92	684	1,544	2,320
Food & Kindred Products	1,987	1,205	2,490	5,682
Textile Mill Products	-	4	-	4
Apparel & Other Fabric'd Textile Products	364	30	330	724
Printing, Publishing & Allied Products	310	127	837	1,274
Chemical & Allied Products	1,197	168	105	1,470
Other Non Durable Goods (Inc. Not Spec. Mfg.)	242	20	197	459
Railroad & Railway Express Service	509	125	410	1,044
Trucking Service & Warehousing	333	136	669	1,138
Other Transportation	116	40	261	417
Communications	186	130	569	885
Utilities & Sanitary Service	160	204	644	1,008
Wholesales Trade	328	252	1,905	2,485
Food & Dairy Products Stores	523	334	1,042	1,899
Eating & Drinking Places	548	418	1,443	2,409
Other Retail Trade	2,348	1,210	5,119	8,677
Finance, Insurance & Real Estate	570	265	1,973	2,808
Business Services	218	49	554	821
Repair Services	202	211	479	892
Private Households	359	255	832	1,446
Other Personal Services	542	313	1,259	2,114
Entertainment & Recreation Services	148	65	387	600
Hospitals	469	243	1,119	1,831
Educational Services: Government	714	502	1,382	2,598
Private	187	59	766	1,012
Welf., Relig. & Non-Profit Membership Org.	266	193	826	1,285
Other Professional & Related Services	462	518	1,175	2,155
Public Administration	467	418	1,264	2,149
Industry Not Reported	322	373	2,208	2,903
Female	6,017	3,801	14,484	24,302
Agriculture, Forestry & Fisheries	167	119	260	546
Construction & Mining	16	21	122	159
Manufacturing	1,223	907	2,554	4,684
Machinery	131	39	394	564
Transportation Equipment	4	-	22	26
Other Durable Goods	265	491	1,036	1,792
Food & Kindred Products	269	236	613	1,118
Textile Mill Products	-	4	-	4
Apparel & Other Fabric'd Textile Products	331	30	257	618
Other Non-Durable Goods (Inc. Not. Spec. Mfg.)	223	107	232	562
Transportation, Commun. & Other Pub. Util.	183	140	423	746
Wholesale Trade	50	39	335	424
Food & Dairy Products Stores	246	144	406	796
Eating & Drinking Places	388	305	946	1,639
Other Retail Trade	893	437	2,118	3,448
Finance, Insurance & Real Estate	292	104	860	1,256
Business & Repair Services	162	32	225	419
Personal Services	686	414	1,527	2,627
Entertainment & Recreation Services	77	28	168	273
Hospitals	411	199	997	1,607
Educational Services: Government	484	318	946	1,748
Private	155	51	462	668
Other Professional & Related Services	322	315	1,031	1,668
Public Administration	127	118	316	561
Industry Not Reported	135	110	788	1,033

*SOURCE: PC (1), 17C, Iowa -- Table 85

TABLE 11

MAJOR OCCUPATION GROUP OF UNEMPLOYED IN DISTRICT, 1960*

	CLINTON	MUSCATINE	SCOTT	TOTAL
Male, Experienced - Unemployed	562	297	1,102	1,961
Professional, Tech. & Kindred Workers	3	-	17	20
Farmers & Farm Managers	4	-	-	4
Mgrs., Officials & Propr's. Exc. Farm	7	-	16	23
Clerical & Kindred Workers	20	4	25	49
Sales Workers	8	8	38	54
Craftsmen, Foremen & Kindred Workers	107	69	203	379
Operatives & Kindred Workers	209	109	389	707
Private Household Workers	-	-	-	-
Service Workers, Exc. Private Household	29	8	96	133
Farm Laborers & Foremen	19	9	15	43
Laborers, Exc. Farm & Mine	132	74	207	413
Occupation Not Reported	24	16	96	136
Female, Experienced - Unemployed	184	160	401	745
Professional, Tech. & Kindred Workers	14	-	11	25
Farmers & Farm Managers	-	-	-	-
Mgrs., Officials & Propr's., Exc. Farm	4	-	13	17
Clerical & Kindred Workers	28	19	115	162
Sales Workers	4	3	12	19
Craftsmen, Foremen & Kindred Workers	3	-	-	3
Operatives & Kindred Workers	75	81	117	273
Private Household Workers	12	4	28	44
Service Workers, Exc. Private Household	15	20	62	97
Farm Laborers & Foremen	4	-	4	8
Laborers, Exc. Farm & Mine	11	8	16	35
Occupations Not Reported	14	25	23	62

*SOURCE: PC (1), 17C, Iowa -- Table 85

PART IV

Basic Social Services

As one studies the character of a community, it is equally important to know how its people play and relax as how they work. This section of the report concerns itself with some of the major types of services and social institutions exclusive of education.

Recreational Facilities. The metropolitan area of the Quad-Cities provides many access facilities to take advantage of the nation's greatest river. Boating is a popular summer-time activity and there are many boat marinas along the river. The various city park facilities provide swimming pools, baseball activities, tennis courts and recreational programs for youngsters.

Davenport is proud of its 27 beautiful parks and playgrounds located conveniently throughout the city. Three municipal golf courses are located in Davenport, and the Davenport Country Club is situated approximately 12 miles up the river from the city. The latter is a private club and in addition to having a swimming pool, riding stable and clubhouse, it has one of the finest golf courses in the Middle West. At the Masonic Temple Auditorium, which seats 3,000 people, are held numerous state productions, road shows, and concerts and recitals. Municipal Stadium built on the river front, seats 6,000 people and provides thrills from the professional baseball team, the Quad-City Angels of the Class A Midwest League. The Quad-City Raiders professional football league and various soccer teams provide entertainment in the fall. In LeClaire Park, on Davenport's river front, stands the Petersen Memorial Band Shell, where band concerts are given regularly each summer.

Bettendorf has a newly completed Community Center which is headquarters for civic, social and cultural activities. There are three parks in Bettendorf, and it is also the home of the Scott County Sportsmen's Club.

Clinton has 14 parks with 264 acres. The city is also the home of the Clinton Pilots which is a Class A Midwest baseball league. The Clinton Country Club has a beautiful 18-hole golf course with an excellent air-conditioned clubhouse and lounge. A new 18-hole public golf course has just recently been opened and there are future plans for a swimming pool.

Muscatine has a modern park system of eight parks which offers an animal zoo, swimming pool, picnic areas as well as baseball, tennis and horseshoe. There are two golf courses, one of which is a public course.

Cultural Activities. Devotees of the fine arts have ample opportunity for participation in the area. The Davenport Public Museum is an outgrowth of the Davenport Academy of Natural Sciences founded in 1867. Few, if any cities in the United States under 100,000 population, possess such a distinguished institution. It contains rare and valuable scientific works, archeological materials, and pioneer relics. The Municipal Art Gallery of Davenport was opened in 1925 and contains a collection valued at $500,000. The public library houses 150,000 books for Davenport readers.

In Fejervary Park in Davenport is a Children's Zoo with story-book exhibits, where domestic animals and wildlife live in a Mother Goose fairy-story setting. The Tri-City Symphony performs in the three million dollar Masonic Temple.

Bettendorf has one public library constructed at a cost of $100,000 in 1960. The library has over 23,500 volumes and offers a Children's Story Hour every Saturday morning and two discussion groups -- Great Books and Contemporary which meet regularly. The Community Center is the home of the Bettendorf Community Theater group which produces several plays each year.

A recent addition to the cultural life of Clinton has been the formation of a seventy-piece Clinton Symphony Orchestra with a professional director. In 1958 the Community Chorus was formed specifically for the purpose of singing Handel's "Messiah". More than 150 vocalists participated in the actual performance. There are two public libraries located in Clinton.

Muscatine is the home of the Laura Musser Art Gallery and Museum. In Weed Park of Muscatine is a zoo with approximately 60 species of animals. The P.M. Musser Library provides reading for its Muscatine residents through its 54,000 volumes.

Communications. Davenport is the home of Radio Station WOC, a National Broadcasting Company affiliate. It is the oldest radio station west of the Mississippi River, being established in 1921. It also operates Television Station WOC-TV, an NBC affiliate, on Channel 6. This was the first television station in Iowa. There are also two other radio stations in Davenport. They are KSTT, a member of Mutual Broadcasting System and Station KWNT, an independent station.

Davenport's newspaper, the Times-Democrat, is published daily and Sunday. There is a morning and evening circulation Monday through Friday and a morning paper only on Saturday and Sunday. The week day publications are circulated throughout 57,000 homes while the Sunday circulation is 75,000. Davenport has two weeklies -- the Catholic Messenger and the Farm Bureau News.

Bettendorf has a weekly newspaper, the Bettendorf News.

Clinton has two radio stations. The oldest station, KROS, established in 1941, operates on AM and FM facilities. KROS is a member of the Tall Corn and Mutual Networks. Clinton's newest radio station, KCLN, began operations in 1956. The Clinton Herald is the Clinton daily newspaper, with a circulation of 23,588. The Town Talk is a shopping and advertising guide published weekly and circulated to approximately 18,000 persons.

The Muscatine Journal, since 1840, is published daily except Sunday, for the Muscatine area residents. Radio Station KWPC is AM and FM and serves the community and trade area.

Health and Medical Services. Davenport has three hospitals, with a total of 614 beds and 70 bassinets. Davenport also maintains an exceptional sanitarium with patients from all parts of the country.

Clinton's hospital facilities are well above average for a community of this size. Two hospitals serve the area with an approximate of 250 beds. There are three licensed nursing homes with 94 beds. About 150 professional people are engaged in health services in the area.

Muscatine General Hospital has 100 beds which meets the health needs of the community. Nursing home and convalescent services are available.

Police and Fire Protection. The police department of Davenport consists of 101 members and one station, with 29 pieces of motor equipment, all of which are equipped with two-way radios. The fire department consists of 105 men in ten companies and six stations with 20 pieces of motor equipment. This gives the city a third-class fire rating. Bettendorf has an excellent volunteer fire department. Clinton maintains a fire department with a 41 man "two-platoon" system, and it has three stations. The Police Department operates a short-wave broadcasting station, three radio patrol squad cars and one radio patrol car for the detective bureau. It also utilizes three radio motorcycles.

Sanitary Sewerage and Water Supply Systems. All the principal cities of the area have an "ample" public water supply and sewerage system. The water is obtained from the Mississippi River and chemical analysis shows the water to be soft, pure and exceptionally well adapted to manufacturing and industrial uses.

Transportation. Transportation facilities, a major factor accounting for growth, are very appealing in the Quad-City area. Federal, state and municipal expressways are molding new character lines into the metropolitan map to complement the existing facilities which include four railroads, two airlines, two interstate highways and five U. S. highways and the Mississippi River. The Mississippi River is a major waterway and principal tonnage consists of coal, petroleum products, grain and other raw materials arriving by barge, and outbound cargo which includes some finished products shipped to foreign countries.

The position of the Quad-City area on the midwest highway network, already good, is likely to be even better when present construction plans are completed. Now entering the area are U. S. Highways 6, 61, 67, 150 and 199 in Iowa and 2 and 92 in Illinois and Interstates 74, 80 and 280. A key route, Interstate 80, which will eventually connect New York with San Francisco, has advanced to the stage where the Quad-Cities to Chicago portion is completed. West of the Quad-Cities, sizeable stretches of this route are already in operation. Another important route, Interstate 74, connecting the Quad-Cities with Cincinnati is in the road-building stage.

The metropolitan area is joined by four bridges over the Mississippi River including the Interstate 80 bridge at LeClaire, Iowa.

Religious Services. Churches in the areas concerned are of virtually every faith and denomination. All of the cities in this study seem abundantly served with available religious facilities. Ninety-one churches, representing twenty-eight denominations are listed in the Davenport area alone. Bettendorf lists 15, representing 13 denominations, Muscatine 30 churches and Clinton 46 churches.

PART V

Basic Educational Services

Schools in the area have grown as needed over the years to serve the growing population and have changed to meet changing conditions. Many new buildings have been erected in the past few years and others have been enlarged. With few exceptions, requests for tax increases to provide funds for new schools have been approved by the voters.

The area includes 15 public and 6 private and parochial high schools with a total land area of 1,587 square miles, or slightly less than three per cent of the land area of the state.

The school enrollments grew from 41,561 in 1955-56 to 48,681 in 1964-65. The projected school enrollments indicate 70,232 in 1974-75. These figures would indicate a positive growth in enrollment of about 4 percent per year during the next ten years. In 1964-65 the area contained 34,331 pupils enrolled in K-8. The high school enrollment numbered 14,350.

The proposed enrollment figures must be subjected to much speculation. The area had about 738 drop-outs during the 1963-64 school year. Opportunities for occupational education is now being provided for these through various state and federal programs.

Within the area approximately 2,355 graduated from high school in 1964. About 39 percent did attend four-year colleges, about 10 percent attended junior or community colleges and about 10 percent attended private trade, service and business schools.

There are several colleges of higher learning in the area. St. Ambrose College is located in Davenport. It is a liberal arts college for boys. It is accredited by the Iowa State College in Ames, Iowa. All credits are transferable. There is an average enrollment of 1,000 men students.

Marycrest College, a fully-accredited four-year liberal arts college for women, is also located in Davenport. Marycrest is accredited by the North Central Association of Colleges and Secondary Schools, and National Council for Accreditation of Teacher Education. The college also holds membership in the Association of American Colleges. Founded in 1939, Marycrest now has over 1,000 full-time and part-time students representing all regions of the United States and 17 foreign countries. Liberal arts courses may be combined with professional and pre-professional training.

Palmer College in Davenport is the College of Chiropractics and was founded by Dr. B. J. Palmer in 1895. At that time, it was the only chiropractic school in existence. The first students numbered about ten to fifteen. The number of new students averages around 350, with a constant student level of around 900.

Palmer Junior College was founded in 1964 and has a current enrollment of 275. It is a privately owned two-year college with 20 freshmen courses and 12 sophomore courses.

The American Institute of Commerce is accredited as a two-year business school by the Accrediting Commission for Business Schools, Washington, D. C. It is also accredited by the Illinois Private Business School State Board, the Veterans' Administration, and is a member of United Business Schools Association.

Eastern Iowa Community College, as mentioned before, has three separate campuses; the Clinton Campus, the Muscatine Campus and the vocational-technical programs on the Scott Campus in Davenport. These institutions have served the communities for more than 35 years in excellence as far as staff, programs, etc., are concerned. Two campuses, for the most part, are junior college programs with some vocational-technical programs at each, while in the Davenport area, the major emphasis is on vocational-technical programs.

Clinton College has been in operation for 21 years. It opened in 1946 as a junior college, and was originally housed in the Clinton High School Building with an enrollment of 86 students. Seven subjects were offered, with a staff of seven instructors and a Dean, of whom all were part time. In the fall of 1964, Clinton College moved into their new facility, the present building and campus. Although the building was designed to serve approximately 400 students, the present enrollment is 655.

Muscatine College was established in September, 1929, at which time freshman work of a standard liberal arts college was offered. In the fall of 1930, both the freshman and sophomore years of work were offered. In the 1965-66 academic year, Muscatine College offered an Agriculture-Business program, the only such program in Iowa and one of four in the United States. In 1963, a new building and campus were ready for occupancy. The enrollment in 1929 was 49 students, which dropped in 1943, 1944 and 1945 to 21, 20 and 23 students respectively. The enrollment then soared to 418 students in 1964 and 551 in the fall of 1965. The present enrollment is 747.

In the fall of 1959, the Davenport Community School District was designated by the Department of Public Instruction as an area technical school. This was the first in the State of Iowa. The purpose was to set up programs under the Health Occupations Act and the National Defense Education Act.

The Practical Nursing Education program was started in the fall of 1960 with an enrollment of 20 students, and was housed in the basement of the Home Economics Building of Davenport High School. In 1961, the Electronic Technology program was begun with approximately 20 students. At the present time, programs have been expanded and added and the enrollment is 308.

According to the United States Bureau of the Census, the Quad-Cities metropolitan area is the largest area between Chicago and Omaha and between St. Louis and Minneapolis. The community's main industry is the farm equipment industry. It is the home of Deere & Company, International Harvester has two large plants in the community and the J. I. Case Company has two plants in the community. Though there are many other industries (and some, such as the Rock Island Arsenal, are major employers) the community is making an attempt to attract diversified industries so that the economy of the area will not be so dependent upon one -- the farm equipment industry.

Experience has shown that the most accurate method of projecting enrollment potential for a public comprehensive community college is to base them on prospective numbers of students in grades 9-12 within the area. Numbers of students in grades 9-12 constitute a more stable base from which a ratio may be applied than such others as numbers of seniors, size of population in the area, etc. If one assumes the full time equated enrollment potential to be given proportion of youth in grades 9-12, it doesn't mean that such a percentage of persons in grades 9-12 will actually be expected to enroll, for the result of applying the proportion actually results in a predicted college enrollment potential which would be expected to include persons of all ages enrolled on either a full or part time basis. Research has shown this to be a valid method of forecasting total full-time enrollments of a community college.

The enrollment in any community college is influenced by diversity (number and scope) of offerings, adequacy of physical facilities, images which youth and adults have of the college, nature and effectiveness of high school guidance and counseling services, level of parental encouragement and aspiration for youth, and local financial conditions. The level of enrollment in a college under one set of conditions, such as poor or old physical facilities, will be far different many times from the institution's true potential. Potential relates to the level of enrollment which a community college should or ought to have if conditions were most favorable.

To project numbers of youth in grades 9-12, actual enrollments throughout the study area in all private and public schools were obtained for grades 1-12 for each of the previous ten years. Grade survival ratios were computed separately for schools serving the urban metropolitan area and for others in more rural areas to account for differences in rates of change associated normally with rural-urban populations. These ratios take into account the influence of all but one possible variables affecting change, such as rates of in or out migration of population, death rates, birth and fertility rates, school drop-out rates, promotion policies, and percents of handicapped youth.

The factor unaccounted for is any drastic economic boom or recession or the location or disappearance from the area of major industrial, business or governmental enterprises. A grade survival ratio for each grade 1-12 for each of the previous ten years was computed by dividing the enrollment in a given grade and year by the enrollment for the next previous grade in the next previous year. Average indices of change were computed for the first half of the entire previous decade, the second half, and for the total period.

CHAPTER II

A STUDY OF HIGH SCHOOL SENIORS

Introduction. One important part of assessing the post-high school educational needs of a community is a study of the plans, aspirations, interests and abilities of youth. Previous studies have indicated that plans of high school seniors are predictors of post graduation actions with a validity sufficient to warrant careful attention. Many of the same influences and forces which affect the formulation of plans tend to be those which operate to influence their implementation and determine the extent to which a senior is likely to follow them. It is important to ascertain the extent to which an area contemplating a post-high school educational program contains youth who can probably profit from various types of advanced educational and training programs designed particularly for their wants and needs.

It is significant to identify obstacles which may be associated with post-high school non-attendance and lack of motivation of talented youth to pursue higher levels of education. Assuming the characteristics of seniors in 1966-67 are similar to those who will be succeeding them during the several consecutive years ahead, certain conclusions based upon a study of them can serve as a basis upon which to offer predictions for the future. To this matter, this portion of the report is directed.

During the spring semester 1967 questionnaires developed for the purpose were modified in final form by the Citizens Survey Sub-Committee on Program Needs in cooperation with local high school counselors and principals. Using standardized procedures, they were administered to all seniors of public and private high schools of the study area. To eliminate as much bias as possible from responses, seniors were told only that the study was to obtain information for improving educational opportunities, and no reference was made to its being part of a community college educational needs survey. Questionnaire responses obtained from 2834 seniors were coded for IBM processing and were subsequently analyzed. Following are the results of this study relative to assessing post-high school educational needs. These data are supplemented by those from other sources appearing in other chapters of the report.

Mobility and Nature of Student Population. For further educational planning in the five-county area, it is important to determine whether the prospective student body is composed of persons who have been in the community for some length of time or whether it changes rapidly due to constant migration. Some idea may be obtained by examining the length of time the present seniors have resided in the area served by the respective high schools. These data appear in Table 12.

TABLE 12

LENGTH OF TIME HOME HAS BEEN IN AREA SERVED BY HIGH SCHOOLS

Time of Residence	Percent by Sex		
	Boys	Girls	Both
Less than a year	3	3	3
1-2 years	2	3	3
3-5 years	6	7	7
6-10 years	8	8	8
Over 10 years	80	79	80

Findings reveal that 95 percent of the seniors have lived in the area at least three years, and almost nine of every ten have been there at least six years or since junior high school. Nearly eight of every ten have lived in the area over ten years, while only 3 percent have lived there less than three years. While the data do not reflect out-migration of youth from the area, they indicate that of those currently in school, most of them have been in the area a considerable period of time. These findings evince a very high degree of stability in population.

Respondents included 1468 boys and 1366 girls. Eighteen percent were found to be living with someone other than both their parents while attending school. Thirteen percent were definitely from homes broken by death, separation, or divorce. This is an average proportion of high school senior youth from homes that are broken. The incidence of family instability is less than for some areas around urban centers of population. All youth are deemed to live within easy commuting distance of several central locations in the area. Based upon characteristics of the senior classes studied, an advanced educational program should give about equal emphasis to the needs of both sexes.

Educational Intentions of Seniors Enrolled, Spring 1967. All seniors were asked if their future plans included going to college somewhere. Data summarizing the responses are presented in Table 13. From Table 13, one can observe the number and percent of boys and girls with each of the several educational intentions. For example, it can be seen that while 175, or 12 percent, of the boys definitely do not include college attendance in future plans, 96, or an additional 6 percent, feel plans will probably not include college. One can observe that 48 percent of the boys and 49 percent of the girls indicate that future plans "definitely" include college, while 17 percent of all seniors indicated future plans would "probably" include college attendance. Slightly higher proportions of the boys than girls expect that future plans will definitely or probably include college, and conversely slightly higher proportions of girls than boys do not expect to attend college. In summary, about a fifth of all seniors do not expect to attend college, about a half definitely expect to attend, 17 percent indicated they "probably" would go, and 11 percent did not know or were undecided on the matter. Relatively, a higher percent of seniors expressed definite plans for college than has been the case in several other areas' studies.

TABLE 13

SENIORS' PLANS FOR COLLEGE ATTENDANCE ACCORDING TO SEX

Plan About College Attendance	Boys		Girls		Both	
	Number	Percent	Number	Percent	Number	Percent
No	175	12	221	16	396	14
Probably Not	96	6	119	9	215	8
Sub-Total	271	18	340	25	611	22
Yes	708	48	674	49	1382	49
Probably So	290	20	205	15	495	17
Sub-Total	998	68	879	64	1877	66
Don't Know	190	13	138	10	328	11
No Response	9	1	9	1	18	1
Totals	1468	100	1366	100	2834	100

To determine if there was any difference in educational intentions among seniors in different geographical locations, an analysis was made, and data are shown in Table 14. It can be seen for example that 68 and 65 percents respectively of seniors from Scott County have plans that definitely or probably include college compared to 55 and 48 percents respectively in Louisa County. Regardless of residential location, higher percents of girls than boys indicate future plans definitely or probably will not include college attendance, and higher percents of boys than girls intend to attend.

TABLE 14

SENIORS' PLANS FOR COLLEGE BY PLACE OF RESIDENCE BY PERCENT*

Plan for College Attendance	Scott County		Muscatine County		Clinton County		Cedar County		Louisa County	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
No	11	16	13	19	12	16	14	15	17	18
Probably Not	8	9	7	6	4	9	10	10	5	23
Sub-Total	19	25	20	25	16	25	24	25	22	41
Yes	50	50	46	52	49	47	38	35	31	40
Probably So	18	15	21	14	22	16	29	30	24	8
Sub-Total	68	65	67	66	71	63	67	65	55	48
Don't Know	13	10	12	8	11	11	10	10	24	13

*Number outside the 5 county area small enough that percents are inconsequential.

Place of Expected College Attendance. Youth with plans which definitely or probably include attending college somewhere were asked to indicate where they expected to go. These responses are analyzed in Table 15. Observing Table 15 one can ascertain that of all seniors responding 8 percent of the boys and 3 percent of the girls intend to enroll in Iowa State University. Eight percent expect to enter the State University of Iowa. Sixteen percent expect to attend Eastern Iowa Community College. In column (3) are shown the percents of seniors who would expect to enroll at the various institutions according to high school class rank. One may observe, for example, that of all seniors 16 and 7 percents respectively of boys and girls in the top ranks were interested in Iowa State University, 21 and 14 percents respectively were planning to attend the State University of Iowa; while 14 and 11 percents respectively planned to attend Eastern Iowa Community College. The largest percent planning on attending the Community College were those in the middle level class rank. Relatively large percents of seniors in the top and middle class rank levels planned to attend a college not listed.

TABLE 15

PERCENT OF SENIORS BY CLASS RANK AND PLACE OF EXPECTED COLLEGE ATTENDANCE

(1) College	(2) Percent of All Seniors			(3) Percent by Rank in Class					
				Top		Middle		Lower	
	Boys	Girls	Both	Boys	Girls	Boys	Girls	Boys	Girls
Iowa State University	8	3	5	16	7	4	.6	1	.6
State College of Iowa	2	5	3	3	8	1	3	2	.6
State Univ. of Iowa	9	8	8	21	14	5	4	.7	.6
Eastern Iowa Community College	20	12	16	14	11	26	14	12	9
St. Ambrose College	8	-	4	9	-	8	-	4	-
Marycrest College	-	6	3	.4	9	.3	5	1	2
Augustana College	2	2	2	2	3	2	.8	.4	-
Other	20	28	23	25	35	20	25	11	13

Youth Plans for Period Immediately after Graduation. To ascertain the plans of youth for the immediate future and as a validity check upon responses concerning whether future plans include college attendance, all youth were asked to indicate what they would probably do the next year after high school graduation. Results are presented in Table 16. These data indicate the extent to which youth who plan to attend college intend to do so the next year or whether they intend to delay college entrance to a time later than the next year after graduation.

In Table 16 opposite each type of post-graduation plan is given the percent who intended to do a given thing the next year after graduation. For example, it may be observed that of boys, 23 percent expect to work on a job and 12 percent intend to enter military service the year following graduation. The remainder of Table 16 is to be interpreted in similar fashion. Since boys were asked to check only one choice, percents equal one hundred less non-response, but girls who may plan to become a housewife and work or attend school were permitted two choices. Therefore, percents for girls may add to more than one hundred.

TABLE 16

PLANS DURING NEXT YEAR AFTER GRADUATION

Plans for Graduation	Percent Boys	Percent Girls
Work on a job	23	41
Become housewife	-	12
Military Service	12	1
Work at home	1	1
Attend College	49	46
Attend Business College, Trade or Tech. School or Nursing School	6	21
Don't Know	5	4
Other	1	2

It can be observed that 49 and 46 percents respectively of the boys and girls plan to enroll the year after high school graduation. Six and 21 percents respectively plan to enter either a business college, nurses' training, or a trade or technical school. About 35 percent of the boys expect to work on a job or to enter military service and thus delay their formal education, and 41 percent of the girls expect to work on a job while 12 percent expect to become housewives. Approximately 912 female and 818 male graduates might be expected to enter a post-high school educational institution during the year following high school graduation.

In general, data regarding immediate post graduation plans of youth tend to verify the expressed intentions for including college somewhere in future plans. Whereas, 68 and 64 percents of boys and girls respectively indicated future plans included college, 55 and 67 percents respectively indicated they planned to attend school the next year after graduation. Apparently over one in every ten boys expects to delay entrance until a later date.

Curriculum Distribution by Plan for College. An analysis of educational aspirations was made according to type of curriculum in which youth were enrolled to ascertain (1) the extent to which youth who aspire to college are enrolled in curricula appropriate to the goal, and (2) the extent to which youth not planning on college are enrolled in a college preparatory curriculum. Both reveal, in part, the effectiveness of educational guidance and extent to which youth have made realistic choices. These data are presented in Table 17.

TABLE 17

PERCENT OF SENIORS BY CURRICULUM ACCORDING TO EDUCATIONAL PLAN

Plans for Attending College	Commer-cial	College Prep	Agri-culture	Shop or Ind. Ed.	Gen-eral	Home-making	Other	No Resp.
BOYS								
No	5	2	6	53	33	-	1	-
Probably Not	7	6	6	48	30	-	1	1
Probably So	16	33	1	19	29	-	1	-
Yes	5	76	1	4	13	-	1	-
Don't Know	8	12	5	33	40	1	-	-
GIRLS								
No	43	3	-	2	33	17	1	-
Probably Not	51	13	-	2	29	5	1	-
Probably So	36	33	-	1	26	3	1	-
Yes	10	75	-	-	12	1	1	-
Don't Know	50	10	-	1	27	9	1	2

Table 17 may be read as follows. Of the boys indicating that future plans definitely do not include attending college somewhere, 5 and 2 percents respectively are enrolled in the commercial and college preparatory curricula, 53 percent are in a shop or industrial education curriculum, and 33 percent are in a general curriculum. Of the girls whose plans are the same, 43 percent are in a commercial curriculum, and 3 percent in a college preparatory curriculum, while 33 percent are enrolled in a general curriculum.

Of the seniors definitely planning on college attendance, 76 and 75 percents respectively of the boys and girls are in a college preparatory program. Half the boys whose plans definitely or "probably" do not include college and a third of others who don't know whether college attendance are in future plans are enrolled in a general curriculum; whereas about half the girls with similar plans are in the commercial curricula. Ten percent of the girls and 5 percent of the boys whose plans include college are in the commercial program. About three of every ten youth who think their plans will "probably" include college are in the college preparatory program.

Observation of the data reveals that the largest percent of boys whose plans do not include college are enrolled in either a shop or general curriculum. Girls in the category are enrolled in either the commercial of general curriculum. About the same percent of girls and boys definitely not planning on college are in the college preparatory program. In general, it appears that youth are enrolled in curricula compatible with future educational aspirations.

Relationship of Grade Average to Plans for College and Curriculum. To determine the extent to which youth aspiring to college attendance have earned grades sufficiently high to predict success, an analysis of plans and class rank by thirds was made. This analysis reveals also the extent to which good students may not plan on college attendance. Data presented in Table 18 are to be interpreted in the following manner. Under a given class rank and sex column and opposite each type of plan for college attendance are given the percents of students in each class rank as reported. For example, one may note that of boys in the top third class rank, 2 percent have no plans for college, 2 percent will probably not attend, while 93 percent will definitely or probably attend. It may be seen that larger percents of girls than boys in the top third definitely or probably do not include college in future plans.

It can be observed that two thirds of the boys and 53 percent of the girls in the middle third academic class rank probably or definitely will include college in future plans. Noteworthy is the fact that 32 and 27 percents respectively of boys and girls in the lowest third by class rank expect to definitely or probably attend college. With approximately three in ten seniors ranking in the lowest third of their classes anticipating college attendance it would appear that adequate guidance and counseling services will be demanded in a local community college to deal with this group and that appropriate types of remedial and developmental programs will be needed at the post-high school level.

From these data it can be determined that about five of every ten girls and boys whose class rank was in the lowest third definitely or probably do not include college in their plans. Small percents of youth in the top third will probably or definitely not include college attendance in future plans.

TABLE 18

PERCENT* OF SENIORS BY SEX, ACADEMIC RANK
AND PLANS FOR COLLEGE

Plan for College	Boys			Girls		
	Top	Middle	Low	Top	Middle	Low
No	2	10	35	3	21	43
Probably Not	2	7	13	5	12	10
Probably So	10	27	18	10	19	14
Yes	83	39	14	78	34	13
Don't Know	3	17	19	3	14	18

* Difference between total percents and 100 percent is attributed to non-response on one or other of the items.

These data were analyzed another way to determine what percent of youth with each type of plan ranked in the three ranks. It was found that of all seniors whose plans would probably or definitely not include college, 7 percent ranked in the top third, 53 percent ranked in the middle third, and 40 percent were in the lowest third. Of youth definitely or probably including college attendance in future plans, 39 percent ranked in the top third, 51 percent in the middle third, and 10 percent in the lowest third. Of men and women respectively with definite plans for college attendance, 54 and 64 percents were in the top rank, 40 and 33 percents were in the middle third, and 6 and 3 percents were in the lowest third. These analyses indicate that a relatively small percent of capable youth do not plan to attend college but that at least one of every ten persons who may include college in future plans rank in the lowest third of their class.

Reasons for Not Attending Eastern Iowa Community College. All youth whose future plans included attending college somewhere but who did not expect to attend the local Community College were queried as to the reasons of most importance. An attempt was made to determine if the matter of personal or family finance or image about the college were deterring factors. Table 19 contains an analysis of the reasons cited by senior boys and girls.

TABLE 19

PERCENT OF YOUTH WITH COLLEGE PLANS WHO DO NOT INTEND TO ATTEND EASTERN IOWA COMMUNITY COLLEGE

Reason	Percent		
	Boys	Girls	Both
Does not offer what I want	40	44	42
Too much like high school	5	6	5
Want a church college education	3	5	4
Too expensive	5	6	6
Inadequate and crowded conditions	2	1	1
Instruction not as good as elsewhere	11	8	9
Low high school grades	11	2	7
Most students who cannot succeed elsewhere go there	4	3	4
Other - miscellaneous	19	25	22

In Table 19 opposite a given reason are given the percents of boys and girls or both who indicated it as a reason why they do not plan to attend the local college. It can be observed, for example, that of the boys and girls respectively, 40 and 44 percents indicate the college did not offer what they wanted. Eleven percent of the boys and 2 percent of the girls indicated low high school grades as the reason. Eleven and 8 percents respectively of boys and girls felt instruction was not as good as elsewhere while 5 and 6 percents respectively felt the local college was too expensive. Five and 6 percents of boys and girls respectively thought the local college was too much like high school while 4 and 3 percents respectively believed that most students who could not succeed elsewhere went there. Three and 5 percents respectively wanted a church college education. Nearly a fifth of the boys and a fourth of the girls indicated some reasons other than those mentioned. In summary about a fifth of all seniors planning to attend college elsewhere did so because of poor image about the college, 42 percent felt it did not offer what they wanted, 6 percent believed the local college too expensive, 7 percent had low high school grades, 4 percent wanted a church college education, and 22 percent gave a host of miscellaneous reasons. It appears a poor image and lack of offerings to accommodate interests account for reasons that nearly six of ten seniors would not attend the local community college.

Youth whose future plans definitely or probably did not include college attendance at all were asked to indicate the reason of most importance. These data appear in Table 20. It can be seen that a tenth of all respondents not continuing their education indicated they were tired of school and had had enough. Slightly over three of every ten of those youth indicated they wanted to work and make money or that continuing in school was too expensive and they could not afford it. About two of these three out of every ten wanted to work and make money. A fifth indicated they could not make good enough grades. Only 3 percent indicated continuing their education would be a waste of time or that persons who don't go to college get ahead just the same. Ten percent did not respond, and another ten percent gave other reasons. Lack of ability to make grades and financial reasons were given by slightly over half as being most important.

TABLE 20

PERCENT OF YOUTH WHOSE PLANS "DO NOT" OR "PROBABLY WILL NOT" INCLUDE COLLEGE BY REASON

Reason	Percent		
	Boys	Girls	Both
Tired of School; had enough	11	8	10
Want to work and make money	16	21	18
Too expensive; can't afford it	14	12	13
Want to get married	8	19	13
Parents don't want me to	.2	.4	.3
People who don't go to college get ahead just the same	2	-	1
Waste of time	2	1	2
Can't make good enough grades	26	19	22
Other	9	12	10
No response	12	8	10

Effect More Money Would Have on Plans. Each respondent not planning on attending college somewhere was asked if he would change his plans if he had more money. Responses are shown in Table 21, according to number and percent of seniors indicating "yes", "no", or "maybe" as to whether plans would change.

TABLE 21

NUMBER AND PERCENT OF YOUTH NOT PLANNING ON COLLEGE WHO WOULD CHANGE PLANS IF THEY HAD MORE MONEY

Would Change Plans	Boys	Girls	Both
Yes	17	14	15
No	46	54	50
Maybe	29	27	28
No Response	8	5	7

It can be observed that 17 and 14 percents respectively of the boys and girls indicated that plans would definitely change if they had more money. A higher percentage of boys than girls were undecided and thought "maybe" plans would change with more money; this group represented 28 percent of all whose plans do not include college. Those who felt that plans would change with more money constitute 5 percent of all seniors and with those who were undecided they represent 9 percent of the total number of seniors studied. Since responses were anonymous there is no way of determining how many of this group had grades that would predict success. The important thing is that at present a financial barrier appears to deny between one and two individuals out of every ten an opportunity to try for success in additional types of education.

Typically, the community college is an "open door" institution which affords youth and adults the opportunity to succeed without discrimination against those who otherwise would never have a chance because of financial reasons or inability to meet admission standards of some four-year institution, however accessible they may be. Five of every ten youth not continuing their education, including a higher proportion of girls than boys, would definitely not change their plans if they had more money. The percent of study area youth whose plans might be altered with more money coincides with similar percentages derived in other studies. Asked how much money they would need through scholarships, loans or other provisions in order to change plans, 41 percent of the students whose plans definitely or probably do not include college but who would change their plans felt they would need enough to pay all expenses, 48 percent would need enough to pay half, and 10 percent would need enough to pay less than half. Students who would need enough money to pay half or less of the expenses constitute 8 percent of all respondents.

Interest in Further Education by Graduates Whose Plans Do Not Include College. Seniors whose plans definitely or probably do not include college attendance were asked to indicate in which of several types of education they would have greatest interest. Results appear in Table 22. It can be observed that 33 percent of the boys and 9 percent of the girls or a total of 21 percent with no plans for college indicate interest in working several years as a paid apprentice to learn a trade. Only 3 percent of all seniors without plans for college would be interested in adult education classes. A third expressed interest in on-the-job training with a company or industrial firm. Twenty-seven percent of the boys and a third of the girls were interested in on-the-job training. Twenty-seven percent of all seniors with no plans for college, or 13 and 42 percents of boys and girls respectively, expressed no interest in any of the types of education listed in Table 22. Only two percent expressed an interest in correspondence study. Twenty-three percent of the boys and 4 percent of the girls expressed interest in entering military service for training.

TABLE 22

TYPES OF TRAINING OR EDUCATION OF GREATEST INTEREST TO YOUTH NOT PLANNING ON COLLEGE

Type of Education	Percent		
	Boys	Girls	Both
Work for several years as a paid apprentice to learn a trade	33	9	21
Post graduate high school work in the high school at night	1	2	1
Enter military service for training	23	4	14
On-the-job training with a company or industrial firm	27	33	30
Correspondence study	1	2	2
Attend adult education classes	1	5	3
None of the above	13	42	27
No response	1	3	2

Youth without plans for college were asked about the types of advanced education in which they would have interest provided opportunity was available. This inquiry was designed to assess the level of interest for advanced business, trade or technical training or for regular college work. As shown in Table 23, 58 percent of all seniors with no plans for college attendance indicated interest in some type of advanced business, technical, or trade training if it were available in the area. Thirty-one percent exhibited no interest in anything that might be available, and 8 percent would have an interest in regular college parallel work if it were available. From these data one can conclude that while half the boys express interest in on-the-job training or military service school and a third are interested in apprenticeship training, an almost negligible proportion, 1 percent, would be interested in adult education classes usually offered at night in their local high school. About six of every ten youth whose future plans do not include college attendance would be interested in some type of advanced occupationally related education.

TABLE 23

PERCENT OF YOUTH NOT PLANNING ON COLLEGE BY TYPE OF ADVANCED EDUCATION IN WHICH INTERESTED IF AVAILABLE IN THE AREA

Type of Education	Percent		
	Boys	Girls	Both
Advanced technical, business, or trade training	56	60	58
College parallel	9	7	8
None	32	31	31
No response	3	2	2

Educational Plans and Perceived Family Economic Status. Youth were asked to indicate one of several responses which they perceived as best describing their family's income. Thus, it was possible to obtain students' perceptions of their family's income status. Data in Table 24 show the analysis of (their perceptions of family income level according) plans which youth have for college attendance. It can be observed that of youth who indicate their family "frequently has difficulty making ends meet" 27 and 25 percents of boys and girls respectively definitely do not plan on college compared to 12 and 16 percents of those who feel the family financial condition is comfortable but not well-to-do and 8 and 14 percents of those whose family is well-to-do. Of youth from families that frequently have difficulty making ends meet 19 and 38 percents respectively of boys and girls plan on college compared to 59 and 60 percents respectively of those where the family is perceived as well-to-do. Observation of Table 24 reveals that, in general, higher proportions of youth have plans for college attendance as family income level rises. Not shown, are data derived from another analysis indicating that of boys with no plans for college 9 percent are from homes that have difficulty "making ends meet" or in getting necessities compared to 3 percent from the same type of homes who plan on college attendance. Eight percent of girls with no plans for college are from similar homes while 3 percent of those planning on college live in families where this level of income prevails. It is apparent that perceived family income level is directly associated with whether youth plan on college attendance.

TABLE 24

DEFINITE PLANS FOR COLLEGE AND PERCEIVED FAMILY ECONOMIC STATUS BY PERCENT

Perceived Family Economic Status	No Plans		Definite Plans	
	Boys	Girls	Boys	Girls
Frequently have difficulty making ends meet	27	25	19	38
Sometimes have difficulty getting necessities	16	39	35	28
Have necessities but not many	14	19	39	39
Comfortable but not well-to-do	12	16	48	49
Well-to-do	8	14	59	60
Wealthy	11	0	57	66

Relationship of Plans and Stability of Home Life. Opportunities which youth have and their plans for the future may be related to the stability of home and family life. In a community where a high proportion of homes are broken by death, separation, or divorce, it is not likely one would find youth receiving the encouragement or opportunity to continue their education beyond high school that would be true of a community where family life was more stable, everything else being equal.

An analysis was made to determine if there was any difference in educational plans of youth associated with whether their home was broken. When boys from broken and unbroken homes were studied according to those with definite plans for college, it was found that 37 percent of the former and 50 percent of the latter had definite plans for college. From unbroken homes 68 percent of the girls have plans that definitely or probably will include college compared to 48 percent of the girls from broken homes. Whereas, 22 percent of girls and 12 percent of boys from broken homes did not include college in their future plans, this was true of 12 and 15 percents respectively of those from unbroken homes. One can conclude that there is in this area a relationship between youth educational plans and stability of family life as reflected in broken or unbroken home situations.

Perceived Parental Attitudes and Youth Educational Intentions. Previous studies have shown a relationship to exist between attitudes which youth perceive their parents have about post-high school education and their own plans or intentions. Perceived parental attitudes, insofar as they are valid reflections of parents' true attitudes, also reveal indirectly the strength of moral support which is likely to exist in a community concerning programs of education beyond the high school. Data from this analysis are shown in Table 25.

TABLE 25

YOUTH PERCEPTION OF PARENTAL
ATTITUDE ABOUT COLLEGE ATTENDANCE

Parents Attitude	Percent		
	Boys	Girls	Both
Insist I go	34	22	28
Want me to if I want to	53	64	58
Indifferent	10	11	10
Don't want me to go	.6	1	1
Won't allow me to go	.3	.4	.3

One can observe that 86 percent of the seniors perceive that their parents either insist they attend college or want them to attend after graduation. This percent compares to 84, 82, and 80 percents in three other areas recently studied. Only 11 percent of youth felt their parents were indifferent or negative about the matter. Little difference seems to exist in attitudes of parents as perceived by each sex, however, a higher percent of boys' parents than those of girls, "insisted" that college attendance be included in the future. A higher percent of girls' parents were reported as indifferent or negative.

Attitude and desire of parents toward continued education for their children seems to be associated with educational plans which youth express. The perceptions which a high school student has of how his parents feel about his attending college may influence his own attitude and plans for future training. To ascertain the extent to which these relationships are true in the study area, an analysis was made, and the data are presented in Table 26. Under each type of educational intention are given the percents of boys and girls according to attitude which is perceived. For example, it may be observed that of the boy seniors whose plans definitely do not include college, 2 percent believe their parents insist they attend college, 52 percent believe parents want them to attend, and 43 percent believe their parents are indifferent or negative. This is in contrast to 55 percent of the boys with definite plans for college who perceive parents as insisting on college attendance, 43 percent who want them to go if they want to and 1 percent who are thought as being indifferent about the matter.

Further observation and examination of the data reveal that higher percents of youth whose future plans will definitely or probably include college indicate their parents insist they go than youth whose plans either definitely or probably do not include college. Also striking is the relatively larger percents of parents perceived as indifferent by youth not planning on college compared to those who are. About seven of every ten youth who "don't know" whether future plans include college indicate their parents want them to attend. One can conclude from these data that in the study area although parental expectations seem relatively high for their children, the intention or plan of youth in regard to attending is directly associated with attitudes youth believe parents to possess. Indifferent or negative attitudes reported by boys were highest in Cedar County, where nearly a fifth of the students reported such attitudes followed by 13 percent in Clinton County, 12 percent in Louisa County, 9 percent in Scott County and 8 percent in Muscatine County. While those attitudes reported by girls existed most in Louisa County, Cedar County was next followed by Scott, Clinton, and Muscatine in that order.

TABLE 26

PERCENT OF SENIORS BY PLAN FOR COLLEGE AND PERCEIVED PARENTAL ATTITUDE TOWARD COLLEGE ATTENDANCE

Perceived Parental Attitude	Plans for College									
	No		Probably Not		Probably So		Yes		Don't Know	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Insist on or expect me to go	2	-	7	3	29	15	55	38	10	4
Want me to go if I want to	52	61	70	72	61	74	43	59	76	72
Indifferent	40	30	20	19	8	10	1	2	12	20
Don't want me to go	2	4	1	3	1	2	-	-	-	2
Won't allow me to go	1	1	-	1	-	-	-	-	1	1

Relationship of Educational Plans and Educational Level of Parents. To determine the extent to which the plans of youth are related to the educational levels attained by parents, an analysis was made of their educational intentions and highest level of education attained by parents. These data appear in Table 27. In columns under youth plans for college are shown the percents of parents for boys and girls separately who had different levels of educational attainment. It can be observed, for example, that the mothers of 21 and 23 percents of boys and girls respectively whose future plans definitely or probably do not include college have an education of 8th grade or less, whereas only 9 percent of youth whose plans definitely or probably include college had mothers with that level of education. The rest of the Table is to be interpreted likewise. Observation reveals that higher proportions of youth with plans for college were from homes where parents had higher levels of education than those whose future plans did not include college. For example, 40 and 52 percents respectively of mothers and fathers of boys not planning on college attendance had less than a high school education in comparison with 21 and 28 percents respectively of mothers and fathers of boys whose future plans include college attendance. Parents of nearly three of every ten seniors planning on college had some college education compared to parents of slightly more than one in every ten youth whose own plans do not include college.

TABLE 27

SENIORS' EDUCATIONAL PLANS AND LEVEL OF PARENTS' EDUCATION

Highest Level of Education	No or Probably Not				Yes or Probably So			
	Mother		Father		Mother		Father	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
8th Grade or Less	21	23	29	31	9	9	13	13
Some High School	19	21	23	20	12	13	15	13
High School Graduate	39	39	26	28	44	39	33	31
Business or Trade School	3	6	3	6	6	10	7	8
Some College	4	4	6	5	12	14	11	13
College Graduate	4	4	3	3	14	13	18	21
Don't Know	7	3	9	6	2	1	3	3

When an analysis is made to determine what proportions of youth have plans for college according to level of parental education a direct relationship is found between level and percent of youth whose own plans include college attendance. This is illustrated by the fact that of parents who had no more than an eighth grade education 49 and 52 percents of the mothers and fathers respectively had boys whose plans include college attendance compared to 87 and 91 percents respectively of mothers and fathers who were college graduates. Whereas, of parents who were college graduates 7 and 4 percents had boys whose future plans did not include college, 34 and 32 percents respectively of mothers and fathers with only an eighth grade education had boys whose plans did not include college. The same type of relationship exists between educational level of girls' parents and their own educational intentions. The socio-cultural barrier to equal educational development is apparent in this area.

Long Range Future Occupational Plans of Youth. Occupational aspirations of youth give clues to types of training beyond high school which would be required if they are to achieve their occupational goals. All seniors were asked to name their first preference for the kind of job which they would like to look forward to having ten years from now. An attempt was made also to determine the extent to which youth with occupational goals requiring further training beyond high school have educational intentions compatible with that requirement.

Table 28 contains the percent distribution of youth by sex according to occupational aspiration. Opposite each occupational field is given the percent of seniors aspiring to it. For example, one may observe that of all boys, 29 percent indicated an interest in one of the professions as did 27 percent of the girls. This was a total of 28 percent of all seniors or 788 seniors. Sixteen percent of the girls want to enter office-clerical-secretarial types of work. There were 275 seniors interested in this type of work. Six percent, or 83 girls, indicated an interest in becoming a nurse, and 15 percent were only interested in being a housewife. The occupations of nursing, business, the professions, and homemaking were of interest to 64 percent of the girl seniors.

TABLE 28

OCCUPATIONAL ASPIRATIONS OF YOUTH

Occupational Aspiration	Boys	Girls	Boys and Girls	
	Percent	Percent	Percent	Number
Professional (other than nursing)	29	27	28	788
Nursing	-	6	3	83
Military Service	1	-	1	25
Office-Clerical-Secretarial	4	16	10	275
Housewife	-	15	7	211
Electricity or Electronics	5	2	4	107
Selling-Salesman-Waitress	1	-	1	23
Drafting or Building Trades	5	-	3	74
Mechanics or Machine Shop	7	-	4	101
Agricultural and Related	4	-	2	65
Factory Foreman or Worker	3	-	2	44
Airline Pilot or Hostess	1	2	2	52
Art (Interior decorating, commercial art, etc.)	1	3	2	53
Run own Business	5	.7	3	81
Laboratory Technical (dental, medical, chemical)	1	3	2	53
Beautician or Barber	.5	6	3	88
Religious Worker	1	3	2	56
Entertainer	1	.7	1	26
Miscellaneous	8	4	6	162
Don't Know	9	4	7	192
No Response	13	5	9	260

Two percent, or 53 seniors, expressed interest in some form of business or industrial art. Twelve percent of the boys were interested in drafting or the building trades, mechanics, or machine shop. Five percent, or 107 boys, were interested in electricity or electronics. At least half of all seniors aspire to enter occupations for which advanced training or education beyond high school would be essential or desirable, exclusive of those wanting to work in the fields of electricity, electronics, mechanics or machine shop, drafting, selling, or building trades. Sixty-five boys indicated their long-range preference for some type of agricultural related occupation. One hundred sixty-two students indicated a preference for some uncommon occupation, or one which did not seem to fit the categories established, and all such variety of occupations were placed in the miscellaneous category. These are listed as follows.

Nine percent of all seniors, or 260 individuals, did not respond to the question and another 7 percent, or 192 individuals, indicated they did not know what they would prefer to do. Types of work to which seniors aspired not included in Table 28 are shown with the numbers indicating each shown in parentheses.

Welding (18)
Aircraft Mechanic (1)
Wildlife, Conservation, Forestry (41)
Heavy Machinery Operator (6)
Body and Fender Repair (8)
Law Enforcement and Firemen (7)
Practical Nursing
Peace Corps (2)
Acting - Dramatics (3)
Fashion Tailor (2)
Social Worker
Supervision for large company or management (5)
Radio and TV Announcer (5)
Psychiatrist or Psychologist (5)
Politics, Diplomatic Corps, or Government Service (19)
Switchboard Operator (4)
Interpreter (9)
Journalism (4)
Space Program
Chemical Engineer
Truck Driver (3)
Chef (8)
Dog or Horse Trainer (3)
Museum Curator
Meat cutter or inspector (3)
Railroad worker (2)
Printer (5)
Iowa Highway Commission
Port man
Plumber (5)
Bricklayer (4)
YMCA Director
Free Lance Writer
Archeologist
Music
Computer Operator and Programmer (2)
Nurses Aid
Research
Buyer for Store
Home Economics Related (2)
Civil Engineering

An analysis of occupational aspirations and educational intentions was completed to discover the extent to which youth aspiring to occupations for which post-high school training would be either desirable or essential plan to enter post-high school educational or training programs. These data are presented in Table 29. Viewing Table 29, it can be seen that of the seniors aspiring to one of the professions other than nursing, 2 percent definitely or probably do not include college in future plans. Eleven percent indicate future plans probably will include college. Two percent don't know if future plans include college attendance, but 666 or 85 percent have definite plans for college attendance. It appears that of seniors aspiring to one of the professions other than nursing, 96 percent have educational plans compatible with their occupational aspirations.

About 27 percent of seniors aspiring to office-clerical-secretarial types of occupations have definite plans for college, and for another 21 percent, future plans will probably include college attendance. Eighty-five percent of the girls interested in nursing as a career indicate future plans will probably or definitely include college, but 10 and 5 percents respectively either do not plan on college or don't know whether they will or not. It is interesting to note that at least 40 percent of the seniors who didn't know what occupation they wanted to enter had definite plans for college attendance, and plans of 19 percent will probably include college. In general, it would seem that youth occupational

TABLE 29

PERCENT OF SENIORS BY PLAN FOR COLLEGE ACCORDING TO OCCUPATIONAL ASPIRATIONS

Occupational Aspiration	Percent				Total Number
	No or Prob. Not	Prob. So.	Yes	Don't Know	
Professional (other than nursing)	2	11	85	2	788
Nursing	10	16	69	5	83
Military Service	24	12	48	16	25
Office-Clerical-Secretarial	38	21	27	13	275
Housewife	41	18	26	11	211
Electricity or Electronics	16	35	37	11	107
Selling-Salesman-Waitress	30	39	22	4	23
Drafting or Building Trades	26	19	19	34	74
Mechanics or Machine Shop	52	15	11	22	101
Agriculture & Related	38	18	35	6	65
Factory Foreman or Worker	55	20	2	23	44
Airline Pilot or Hostess	13	31	40	15	52
Art	9	13	66	11	53
Run Own Business	15	21	60	4	81
Laboratory Technician	10	24	81	12	42
Beautician or Barber	52	18	11	18	88
Religious Worker	4	14	78	4	56
Entertainer	12	12	65	12	26
Miscellaneous	25	20	40	14	162
Don't Know	24	19	40	16	192
No Response	31	19	27	22	260

aspirations and educational plans are quite compatible for those wishing to enter a profession including nursing. However, this analysis reveals that relatively large proportions of seniors with interest in entering some occupations for which traditional regular-type college would not be appropriate have indicated that future plans probably or definitely will include college. This evidence would indicate that some who have expressed plans for entering college could better reorient their educational planning toward a type of technical education more appropriate to the occupational interest. Also, these data support the need for college level occupational education in several fields of interest.

Field of Interest for Advanced Study. Seniors planning on attending college or taking advanced technical, business, or trade training after graduation from high school were asked to indicate the field of greatest interest in which they would like to study. This information shows the extent to which immediate interests for type of advanced study coincides with long range occupational goals. In Table 30 are presented the numbers and percents of seniors indicating each of several fields of interest.

TABLE 30

FIELD OF INTEREST FOR ADVANCED STUDY BY PERCENT

Field of Interest for Study	Number	Percent*
Liberal Arts	253	9
Engineering	120	4
Business Administration	93	3
Teaching	351	12
Medicine	92	3
Agriculture	66	2
Nursing	95	3
General Business	97	3
Accounting	45	2
Secretarial	97	3
Laboratory Tech.	42	1
Drafting and Design	40	1
Machine Shop	34	1
Mechanical Technology	64	2
Electronics Tech.	134	5
Other Skilled Trades	43	2
Beautician or Barber	83	3
Miscellaneous	257	9
Don't Know	103	
No Response	658	

*Percents based on total number of all seniors and not just those planning on advanced education. Less than 1 percent were interested in each of the following: Architecture, Building Trades, Retailing, Mortuary Science and Metallurgical and Metals Technology. Others weren't planning on further education or didn't know what field they were interested in studying.

It may be observed, for example, that 9 percent, or 253 seniors, expressed interest in liberal arts while 4 percent, or 120 seniors, wanted to study engineering. Although a very small number were interested in retailing, not shown in the Table, it can be determined that 340, or nearly 12 percent, of all seniors were interested in some type of advanced business education with the prevailing interest in secretarial science, business administration, and general business. Three percent, or 95 seniors, expressed interest in studying nursing, while 92 others were interested in some type of medical education. Twelve percent, or 351 seniors, expressed interest in teaching. Nine percent, or 272 seniors expressed interest in studying drafting and design, electronics technology, mechanical technology, or machine shop. Sixty-six seniors expressed interest in some field of agriculture. Fields of interest for study classified in the category of miscellaneous were listed as follows. Numbers listing each field are shown in parentheses.

Ministry - Mission - Social Worker (27)
Musician - Drama - Dance (33)
Law (49)
Psychology or Sociology (49)
Heavy Machinery Operator
Astrophysics
Art - Dress Design - Photography (53)
Physical Therapy (13)
Job Corps
Welfare Work (2)
Journalism (15)
Body and Fender Work (2)
Radio - TV Broadcasting (3)
Airline Pilot or Stewardess (10)
Peace Corps
Embalmer
Refrigeration and Air Conditioning (3)
Chiropractic (6)
Political Science (2)
Languages
Oceanography (6)
Home Economics (3)
Foreign Studies Program
Languages Oriental - Modern (2)
Archeology
Merchandising
Computer Programming

Students' Perceptions of Occupational and Educational Guidance Help Received from High School. Attitudes of high school youth toward continuing their training, confidence in the future, and support for a good educational system in the community may possibly be in part determined by the extent to which, as students, they perceive they have received the necessary help desired. A successful community college program is largely dependent upon effective occupational and educational counseling at the junior and senior high school levels. In an attempt to reveal how juniors and seniors evaluate the amount of help received in deciding what occupations to enter or in formulating educational plans beyond high school, an analysis was made according to sex to determine if there are any apparent sex differences in evaluations by youth. These data are presented in Table 31. Findings also show perceptions by area of residence.

From Table 31 one may discern that 19 percent of the boys felt the school had given them lots or all the help they needed, while 22 percent indicated they had received considerable help but more could have been used. Nearly a fourth of the boys and 17 percent of the girls felt they had received "little or no" help, while 35 percent of the boys and 36 percent of the girls felt they had received some but not very much help from the school. Slightly higher percentages of girls felt the school

TABLE 31

YOUTH PERCEPTIONS ABOUT AMOUNT OF HELP
RECEIVED IN OCCUPATIONAL OR EDUCATIONAL PLANNING

Amount of Help	Percent			Percent by Class Rank					
				Top		Middle		Low	
	Boys	Girls	Total	Boys	Girls	Boys	Girls	Boys	Girls
A Lot; all I need	19	22	20	24	26	17	21	15	14
Considerable; could have used more	22	24	23	22	23	22	26	19	16
Some, but not very much	35	36	36	31	36	38	37	35	41
Little or none	24	17	20	22	15	22	16	30	28
No Response	1	1	1	1	-	1	-	1	1

had given them more help than was true of boys, but the differences are minor. When all seniors are considered, 56 percent felt the school had given them little or no help or some but not very much in deciding upon what occupation to enter or in making educational plans for the future. Responses of seniors in this matter are presented by class rank. It can be seen that while 46 and 49 percents respectively of boys and girls in the top third felt the high school had given them lots or considerable help, 34 and 30 percents respectively of boys and girls in the lowest third felt the same way. It can be seen that 65 and 69 percents respectively of boys and girls in the lowest third felt they had received some or not very much help or little or no help; 56 and 53 percents of boys and girls in the top third felt this way. Evaluations of help received seem to be related to grades earned; students with lower grades felt they have had less help then those with higher grades.

An analysis was made of how well seniors felt the high school was preparing them for what they planned to do after high school graduation, and those data appear in Table 32. Thirty-three percent of the boys and 22 percent of the girls felt their high school had either not prepared them very well for what they planned to do after graduation or that preparation was fair but could be better. About four of every ten youth of both sexes felt high school had been very good in some ways but could be better in others in preparing them for life's activities after graduation. A higher percent of girls felt the high school had given them just what they needed than did boys. Youth ranking in the top third of their class evaluated the high school effectiveness higher than did youth in the middle or lower thirds. Whereas 30 and 39 percents of boys and girls respectively in the top third by class rank felt the high school was giving them just what they needed, 22 and 33 percents in the middle third shared this feeling as did 21 and 24 percents respectively of boys and girls in the lowest third.

TABLE 32

YOUTH PERCEPTIONS OF HOW WELL HIGH SCHOOL IS PREPARING FOR PLANNED FUTURE ACTIVITIES

How well School is Preparing in terms of Post Graduation Plans	Percent			Percent by Class Rank					
				Top		Middle		Low	
	Boys	Girls	Total	Boys	Girls	Boys	Girls	Boys	Girls
Not very well	10	6	8	6	3	8	5	22	16
Fair, but all could be better	23	16	20	12	14	28	15	27	28
Very Good in some ways; could be better in others	43	44	43	51	45	42	46	30	32
Giving just what I need	24	34	29	30	39	22	33	21	24

Summary and Conclusions. Data in this report substantiate the following significant statements.

1. A very high degree of population stability was found; 95 percent of all seniors had lived in the area at least three years and 88 percent had been there over six years.

2. Family stability as evidenced by incidence of broken homes was typical for the nation as a whole.

3. All youth live within easy commuting distance to one of the campuses.

4. Post high school programs should give attention and emphasis to the interests and needs of both sexes equally.

5. Two thirds of all seniors, 68 and 64 percents respectively of boys and girls, will definitely or probably include college in future plans; 49 percent plan to do so definitely. Eleven percent don't know if future plans include college, and 22 percent will definitely or probably not include college attendance in future plans.

6. Half the seniors in Scott County indicated a definite plan to attend college compared to 31 percent of the boys and 40 percent of the girls in Louisa County, 38 and 35 percents respectively in Cedar County, 49 and 47 percents respectively in Clinton County, and 46 and 52 percents respectively in Muscatine County. The highest percents of youth who will probably or definitely not include college in their plans resided in Louisa and Cedar Counties.

7. Sixteen percent of all seniors planned to attend an Eastern Iowa Community College campus. The largest percent who plan to attend this College ranked in the middle third of their high school class.

8. Although 68 and 64 percents respectively of boys and girls indicated plans would definitely or probably include college, 55 and 67 percents respectively expected to enter school the next year after graduation from high school. At least one in every ten boys apparently plans to delay attendance to a later date.

9. In general, immediate post-high school plans verified the expressed intentions for including college in future plans.

10. In general, youth were enrolled in high school curricula compatible with future educational aspirations. Of youth not planning on college, the largest percent of boys were in either a shop or general curriculum and the largest percent of girls were in a commercial or general curriculum. Nearly a third of all youth without plans for college were in a general curriculum. Three fourths of all seniors definitely planning on college were in a college preparatory curriculum.

11. Eighty-three and 78 percents respectively of boys and girls in the top third by class rank definitely plan on college as do 39 and 34 percents respectively in the middle third and 14 and 13 percents respectively in the bottom third.

12. Of youth who do not plan on college, 7 percent were in the top third class rank, 53 percent in the middle third, and 40 percent in the low third. Thirty-nine percent of youth in the top third "probably" will include college in plans.

13. While relatively small percents of the most capable youth do not plan on college, at least one of every ten persons who may include college in future plans rank in the lowest third of their class.

14. Youth who plan on college but don't plan to attend Eastern Iowa Community College cite as the reason of most importance that the college "does not offer what I want". Nine percent, almost one of every ten, indicated their reason was that instruction was not as good as elsewhere and 5 percent felt it was too much like high school.

15. Poor image and lack of offerings to accommodate interests account for reasons that about 6 of every 10 youth give for planning to attend college elsewhere.

16. Financial reasons and inability to make good enough grades were reasons of most importance given by over half of all seniors whose plans did not include college attendance anywhere as to why they did not plan to continue their education.

17. Of youth with no plans for college, 15 percent indicated they would change plans if more money were available and another 28 percent thought "maybe" they would change plans. About 48 percent would need enough money to pay half their expenses and 10 percent would need less than half.

18. A third of the boys with no plans for college would be interested in working as a paid apprentice for several years to learn a trade, 27 percent would be interested in on-the-job training and 23 percent are interested in military service training. A third of the girls without plans for college expressed interest in on-the-job training and 42 percent would be interested in no type of further education.

19. About six of every ten students not planning on college attendance expressed interest in some type of advanced occupationally-related education.

20. Youth plans for college were found to be positively related to family economic status, stability of home life, level of education attained by parents, and parents' attitudes about youth continuing in school.

21. Parental aspiration for the education of youth as perceived by seniors was relatively high. A slight bias seemed to favor the education of boys more than girls.

22. Occupational aspirations of youth indicate needs for community college programs which would include (1) pre-professional, (2) nursing, (3) business with emphasis upon clerical-secretarial and business management, (4) electricity-electronics technology, (5) drafting, (6) welding, (7) mechanics, (8) agriculture, (9) art, (10) laboratory technology, and (11) cosmetology.

23. A comparison of occupational aspirations and educational plans reveal that they are quite compatible for those youth seeking to enter a profession or nursing.

24. Relatively large percents of youth with interest in entering some occupations for which traditional type college programs would not be appropriate have indicated future plans to include college in their plans. Either they should reorient their educational planning toward a type of technical education appropriate to the interest or a local college should develop appropriate types of college-level programs to accommodate such interests.

25. Fields of advanced study reveal the needs for (1) pre-professional programs in engineering, social work, teaching and medicine; (2) liberal arts and sciences; (3) business education; (4) laboratory technology; (5) drafting; (6) mechanical technology, electronics technology; (7) agriculture; (8) cosmetology; (9) art, and (10) drama.

26. Although 43 percent of seniors felt their high school had given them all the help they needed or considerable help in making educational plans or occupational choices, 56 percent felt they had received some but not very much help or little or no help in this regard.

27. Twenty-eight percent of youth felt the high school had not prepared them very well or had been only fair in terms of what they expect to do after graduation. Sixty-nine percent felt their high school had been very good in this respect or had given them just what they needed.

28. Evaluations of the high school were associated with rank in class. Youth with higher grades evaluated the high school higher than youth with lower grades. Possibly youth with lower grades did not receive as much help as did others.

CHAPTER III

A STUDY OF PARENTS OF FIFTH GRADERS

Introduction. Since the planning of programs for a community college is a long-term matter, it is desirable to sample the opinion of a group of parents whose children will be of college age some seven or eight years from the time of the survey. The results of such a study are quite useful for planning purposes, especially as regards the kind of programs which probably should be offered by the college and the order of priorities to be used in establishing them. Although the number of youth in Iowa currently reaching eighteen years of age in a given year is threatening to overtax post-high school educational facilities, the really big increases in youth population of college age are yet to come. Beyond 1967 the number reaching eighteen each year will continue to increase with no evidence of leveling off until well into the 1970's. Since institutions of higher education in Iowa are even now finding it difficult to cope with enrollment pressures, and since the desires of youth (and their parents) for college-level educational opportunity are most certainly apt to increase rather than to remain at current levels, it is indeed the better part of wisdom, in a survey such as this, to find out what parents of youth now in the elementary grades are thinking about future college opportunities for their children as well as for themselves.

During the late fall, 1966, the Program Needs of Youth Committee developed a questionnaire instrument designed to elicit information and opinions from a large number of parents of fifth graders throughout the study area. Using an approved sampling technique and enlisting the cooperation of the public and private elementary school, questionnaires were sent home to parents with a letter of explanation about the survey, which asked them to fill out the questionnaire completely and send it back to their local school in a sealed envelope by their fifth grade child. Questionnaires from the parents of 2,648 fifth graders in Clinton, Scott, Cedar, Louisa, and Muscatine Counties were received and coded for data processing. The machine results were subsequently analyzed and they are presented here.

A separation of the results from parents of female fifth graders from those of male fifth graders was made in analyzing results. Where differences were significant the analysis was separated. It is suggested that the information and opinions thus obtained are indeed highly significant for community college planning purposes. The results follow, divided into sections, each section representing the responses to one questionnaire item.

Location of Employment of Parents. It was deemed advisable to determine to what extent Eastern Iowa Community College area school districts make up an economic unit. In other words, are most parents (of those employed) employed in the area or is the area a "bedroom community" for other areas where greater employment opportunities exist? No attempt was made to determine the extent to which either fathers or mothers were employed at a gainful occupation. The data merely indicated that of those employed outside the home, the percentages were as shown in Table 33.

TABLE 33

PLACEMENT OF EMPLOYMENT OF PARENTS OF FIFTH GRADERS

Location of Employment	Percentage of Parents Employed		
	Parents of Boys	Parents of Girls	Entire Area
Fathers' Employment			
Clinton County	20	20	20
Scott County	41	40	40
Muscatine County	14	16	15
Cedar County	1	1	1
Louisa County	3	2	2
Illinois	12	11	12
Other location	4	3	4
Unemployed	1	1	1
Mothers' Employment			
Clinton County	6	4	5
Scott County	12	12	12
Muscatine County	3	5	4
Cedar County	.2	.3	.2
Louisa County	.2	.5	.4
Illinois	2	1	1
Other Location	1	1	1
Unemployed	75	74	75

In general, the findings reveal that Scott County is the focus of economic activity. Over 75 percent of the mothers were unemployed. Of the 24 percent who were employed, 71 percent were working in Scott and Clinton Counties, 16 percent were employed in Muscatine County, and 5 percent were working in Illinois. Sixty percent of the men were employed in Scott and Clinton Counties; 15 percent were working in Muscatine County and another 12 percent in Illinois.

Since relatively high percentages of young (parents of fifth graders are typically in the age group 30-45) workers are employed in Scott and Clinton Counties, it would seem wise to consider the occupational education needs of business and industry within these counties in planning the program for a community college. Needs for workers in Muscatine County should be of particular value also, as well as some consideration for those who may be employed in Illinois.

Mobility of Parents of Fifth Graders. Is the area a relatively stable one or is it an area with a rapid population turnover? Do people move in and out frequently in response to changing social and economic conditions, or is the area one of residential stability? The answers to these questions have meaning for the community college curriculum study, for a stable population is interested in overall and long-term improvement of the community, including the expansion of educational opportunities, while a migrant population is more interested in the here-and-now, specifically in the rate of pay for existing jobs.

The questionnaire elicited information on the length of residence of the family and the results are summarized in Table 34.

TABLE 34

LENGTH OF TIME RESIDENCE HAS BEEN IN THE STUDY AREA

Time in Years	Percents		
	Parents of Boys	Parents of Girls	Both
Less than 1	5	5	5
1 - 5	13	15	14
5 - 10	13	14	13
Over 10	69	66	67

The results here indicated a considerable degree of population stability, at least as far as young families with fifth grade children are concerned. Two thirds of the respondents had resided in the area for over ten years and 80 percent for five years or more. Fourteen percent had been in the area between 1 - 5 years and 5 percent had been there less than a year.

Certainly the area is one characterized by considerable population stability. If past experience continues into the future, nearly seven out of ten of the families queried will be residing in the area when the present fifth graders become potential college students.

Educational and Occupational Status of Parents Responding. Studies conducted in many areas of the nation over the past thirty years indicate that there is a very close relationship between the educational attainments of parents and their plans and aspirations for the education of their children. In general, parents who are college graduates or who have had some college work expect their children to attend college. Parents with a high school education or less are not so apt to be making definite plans for college attendance for their children. However, in recent years, there has been a tremendous increase in the desire, by parents of all educational levels, for post-high school educational opportunities for youth.

American parents, typically, want their children to "succeed," not merely to "succeed them;" and they are increasingly looking upon higher education as the path to success. Parents too, (particularly the younger parents in the age group queried by this study) are aware of the increasing complexity of our society and the alarming increase in the sophistication of jobs of all occupational levels. Workers in the 30 - 45 year age group are increasingly (and sometimes painfully) aware of the limitations placed on their upward occupational mobility (or indeed, upon their ability to retain the job they now have) by a lack of post-high school education and training. To ascertain the educational levels of the parents of sample of fifth graders and to get their opinions on the desirability of post-high school education and training, a number of questions were asked. Table 35 contains data on education status of the parents. It can be observed that 14 percent of the fathers and 7 percent of the mothers were elementary school graduates as the highest level of schooling. Nearly a fifth of each had some high school.

TABLE 35

EDUCATIONAL STATUS OF PARENTS AS INDICATED BY FORMAL (IN SCHOOL) EDUCATION COMPLETED

School Level Completed	Percents (Entire Area)	
	Fathers	Mothers
Elementary School Graduate	14	7
Some High School	19	17
High School Graduate	32	45
Technical School Graduate	4	8
Some College	11	13
College Graduate	17	8
No answer	3	1

The results show that about two fathers in ten are college graduates and that 8 percent of the mothers have a college degree. Totaling the "some college" and "college graduate" entries reveals that three out of every ten fathers and two out of every ten mothers have had educational experience at the college level. These results indicate that this group of parents in the study area contain a relatively high proportion who have not had opportunity for education beyond high school. A third of the fathers were not high school graduates. This was the case also for a fourth of the mothers. Thirty-two percent of the fathers had some type of schooling beyond high school as did 29 percent of the mothers.

Respondents were classified by occupation as to whether they were professional or non-professional. Eight percent of the fathers and 5 percent of the mothers were classified as professional. For 4 percent of fathers and 1 percent mothers, it was not clear if their work was professional. Clearly 86 and 19 percents respectively of responding fathers and mothers of fifth grade children included in the study were non-professional by occupational classification. Three fourths of the mothers and 1 percent of the fathers were unemployed gainfully on a job.

Parents' Plans for Further Education of the Children Who Are Now Fifth Graders. Opinions are just that -- opinions. Up to this point, the information solicited from the sampling of parents consisted of factual matters. The next several questions attempted to obtain carefully considered opinions about future action from the parents. The first of these questions was related to the amount of further (formal) education which the parents expected the fifth grade child to complete. The specific question asked was, "In view of your child's scholarship so far in school, how much further education do you plan for him (her) to complete?" Results are summarized in Table 36.

TABLE 36

PARENTS' OPINIONS ON AMOUNT OF FURTHER EDUCATION PLANNED FOR PRESENT FIFTH GRADERS

Level of Education Being Planned	Percent of Parents Planning Further Education for Children		
	Parents of Boys	Parents of Girls	All Parents
None beyond high school	7	9	8
Trade or vocational school	14	29	21
Two-year community college	14	15	15
Four-year college or university	61	43	52
No response	4	4	4

The first impression gained from a study of Table 36 is the high percentage of parents who are "planning on" their children completing four years of college. The question asked them to "consider their child's scholarship so far in school" in hope that some measure of realism might be injected into the responses, but in spite of this it seems at least half of the respondents are "planning on" a college degree for their children. Currently, in the United States, only about 15 percent of young people of college age are earning baccalaureate degrees, and it is reliably estimated that this figure will not exceed 20 percent by 1970.

It is highly probable that many parents confused "planning" with a kind of nebulous desire. This contention is borne out below in the analysis of the responses to a question about how parents are planning to finance the post-high school education of their children. (See page 63.) While 29 percent of the girls' parents expressed intent for them to attend a trade or vocational school, this was true of only 14 percent of boys' parents. Parents of 14 percent of the boys expect them to attend a two-year community college as did 15 percent of parents of girls. Only 8 percent of all parents did not plan for their child to have any education beyond high school.

Despite the fact that there is probably a considerable degree of wishful thinking in the "plans" of the respondents, the overwhelming interest among parents in college opportunities for their children is apparent, and has significant implications for the present study. It is a matter of interest to note that less than one in ten of the respondents is thinking of allowing his child's education to end with high school; and that slightly less than four in ten want a community college or trade/vocational school experience. In passing, it is of interest to note that 21 percent expressed interest in a trade or vocational school experience. It is interesting to note that parents think of higher levels of education for their male children than for female children.

Summarizing the results of Table 36, it is certainly safe to say that, among the representative group of fifth grade parents surveyed, there is tremendous interest in college educational opportunities for their children, and considerable interest in types of education which a community junior college can offer, including vocational education or technical, semi-professional, and middle management types.

Attitudes Toward Higher Education Opportunity in America. There are two widely differing (and acrimoniously debated) philosophies about higher education in America today. One group cherishes the European tradition that colleges and universities should enroll only the intellectually gifted, and that their curricula should consist only of the liberal arts and the sciences and should eschew any offerings which relate to the practical arts or to the ways people earn a living in our society. A second group believes that the demands of our society and of the world today are such that the nation will stand or fall on the matter of how successfully we educate and train all of our people to the maximum of their capabilities. Since one of the major functions of the community college is the provision of courses and curricula leading to occupational competence, it was felt necessary to obtain the collective opinion of the sample population with regard to the question, "Who should go to college?". The results are presented in Table 37.

Approximately 88 percent of all parents felt that in general all persons who have ability to profit from either the academic or semi-professional and technical education should go to college regardless of financial means. Only 1 percent felt only those with superior academic ability should go to college. About 7 percent believed that students with ability who have the financial means should be those who should go to college. No significant difference was apparent between professional and non-professional parents in this respect.

TABLE 37

OPINIONS OF PARENTS OF FIFTH GRADERS ON WHO SHOULD GO TO COLLEGE

Who should go to college?	Percent of Respondents Checking Each Opinion		
	Parents of Boys	Parents of Girls	All
Those with superior academic ability only	1	1	1
Those with ability who have the financial means	6	8	7
All who have the ability to profit from either academic or semi-professional and technical education, regardless of financial means	88	87	88
Other combination (write-in)	4	4	4

The evidence here is definite and convincing. Area residents who are parents of fifth grade children, and as represented by the random sampling chosen, overwhelmingly reject the philosophy that colleges and universities are only for the intellectually elite. They reject almost as strongly the idea that financial means is a necessary adjunct to college attendance. It would seem that, for the sample studied, parents see the need for an institution which will offer educational opportunities for their children consisting of a wide diversity of curricula including academic and occupational education and institutions whose tuition is low enough that financial hardship will not be a determining factor in decisions to attend (or not to attend) college.

Degree of Certainty of Child's College Attendance. As a check on a prior question (above), it was decided to ask each parent to indicate his (or her) degree of certainty, at the present time, that his fifth grade child would attend college. The results are summarized in Table 38.

Again it may be noted that the level of expectation for college attendance of children is very high for this sample of parents. If the "definite" and the "probable" percentages are totaled, 68 percent of the parents sampled indicate that in all probability, their fifth grade child will attend college (of some kind) at a later date. Attention is called to a comparison of this figure with that obtained from Table 36 by adding the percentages of those expecting either community junior college attendance or four-year college attendance. The combined percentage from Table 36 is 67 percent. Perhaps the words, "How certain are you?" in the question, caused more sober reflection on the part of the respondents, for 43 and 33 percents of parents of boys and girls respectively indicated they were "definitely" planning on their child attending college; about 30 percent of all parents indicated their child would "probably" attend college. About 24 percent of boys' parents and 28 percent of girls' parents were uncertain about the matter at the time of the study. The 38 percent indicating their child would definitely attend is near the actual percent of youth who do continue beyond high school.

TABLE 38

DEGREE OF CERTAINTY THAT CHILD WILL ATTEND COLLEGE

Levels of Certainty	Percents of Parents		
	Boys	Girls	Both
Definitely planning on child's attending	43	33	38
Probably will attend	28	31	30
Uncertain at this time	24	28	26
Probably will not attend	5	8	6

Analyses showed that 64 percent of parents who were professional definitely plan on their child attending college compared with only 35 percent of parents who were non-professional. Only 4 percent of professional parents expressed uncertainty compared to 28 percent of non-professional parents. The same percent of each, 30 percent, felt their child would probably attend. A difference in expressed degree of certainty exists between professional and non-professional parents.

Responses on degree of certainty the fifth grade child would attend college was analyzed by location of the father's employment. Thirty-nine percent of those working in Clinton and Scott Counties were definitely planning on their child attending college and 29 percent felt the child "probably" would attend. In Muscatine County 36 percent responded that the child would definitely attend and 30 percent thought he probably would. In Louisa County 31 and 40 percents respectively thought their child would definitely or probably attend. This was the case for 30 and 38 percents respectively of fathers working in Cedar County and 35 and 32 percents, respectively of those working in Illinois. Thus one can discern a difference in response pattern among respondents working in the several geographical locations.

Responses on certainty that the fifth grade child would attend college were analyzed by expressed intent that one or more children would attend a campus of Eastern Iowa Community College. The intent was to discern what proportion of parents who felt their child would attend college would attend the community college. Results are presented in Table 39. It can be seen that 38 and 37 percents respectively of parents of boys and girls who were definitely certain their child would attend college intend that they attend one of the Eastern Iowa Community College campuses. Forty-six percent of all parents responding who indicated their child would probably attend college indicated the child would attend the community college. About three of every ten parents who were either uncertain or did not expect their child to attend college indicated their child would attend the local community college. A fourth of the parents of boys for whom college attendance was definitely certain, and 28 percent of girls' parents, indicated their child would not attend the local community college; 37 and 35 percents, respectively, of parents of boys and girls for whom college was deemed a definite certainty were uncertain about attendance at the community college. From these data one can conclude that so far as parents are concerned approximately four of every ten youth who would definitely or probably attend college would attend an Eastern Iowa Community College campus. The striking thing is the percents of responses on intent of local college attendance that were "uncertain".

TABLE 39

PERCENT RESPONSES BY CERTAINTY OF COLLEGE ATTENDANCE AND INTEREST IN LOCAL COMMUNITY COLLEGE

Certainty of College Attendance	Intent to Attend E I C C					
	Yes		No		Uncertain	
	Boy	Girl	Boy	Girl	Boy	Girl
Definitely	38	37	25	28	37	35
Probably So	46	46	8	14	47	40
Uncertain	38	36	9	9	53	54
Probably Not	31	23	21	32	48	45

Interest in Trade and Skilled Craft Training. In America today, approximately 10 percent of the labor force is engaged in occupations which fall within the category of the skilled trades. Although jobs at the semi-skilled and unskilled levels are gradually decreasing in numbers and jobs at the professional and semi-professional levels are markedly increasing, in response to the exploding technology of this decade, the demand for skilled workers is remaining about steady. By 1970, it is expected that perhaps 12 percent of the labor force will be so employed.

It was decided to ascertain the extent of interest in education and training for entry into the skilled trades, as evidenced by the sample population of parents of fifth graders. The question asked was, "Are you interested in your child's preparing for entry into a skilled trade?". It was explained that such preparation ordinarily requires high school graduation plus trade school or community college work, and usually several years of apprenticeship. The results are given in Table 40.

TABLE 40

PARENTAL INTEREST IN SKILLED TRADE EDUCATION
AND TRAINING FOR THEIR CHILDREN

Are you interested in trade training for your child?	Percent of Parents Responding		
	Boys	Girls	Both
Yes	43	38	41
No	24	31	27
Uncertain	32	30	31
No Answer	.6	.4	.5

The interesting thing to note here is the seeming inconsistency of these results with those from Tables 36 and 38. Here one can see that 41 percent of the parents sampled are at least thinking about the possibility of their child's entering the labor force in a capacity involving working with his hands at the level of the highly skilled occupations. Results from Table 36 and Table 38, it will be recalled, indicated that 67 percent of the respondents "planned" to have their children attend a two or four year college, and 68 percent thought their child would definitely or probably attend college. It is possible that the answers to the present question (Table 40) are more realistic than those from Tables 36 and 38. In any event, the answers, with respect to education and training for entry into the skilled trades, give some direction to thinking about the kinds of educational and training programs which should be offered by Eastern Iowa Community College.

Analyses indicated that 11 percent of professional parents gave an affirmative response compared to 44 percent of non-professional ones. About 30 percent of each group were uncertain while 59 percent of the former gave negative responses compared to 25 percent of the latter group.

To determine the relationship between responses as to how certain parents of fifth grade boys and girls were that their child would attend college and their interest in the child preparing for entry into a skilled trade, an analysis was made. Such a cross analysis should assist in revealing the validity of responses to the former question presented in Table 38. Results of the analysis are shown in Table 41. It can be seen that 26 percent of the parents of boys who indicated their child would attend college expressed interest in the child's preparing for entry into a skilled trade. This was true for parents of 23 percent of the girls. Two thirds of parents of boys who were uncertain about college attendance and 60 percent who felt their child would not attend college expressed interest in their child preparing for entrance to a skilled trade. Forty-five percent of parents of boys and 54 percent of parents of girls who were definite their child would attend college expressed no interest in the child preparing for a skilled trade. About a fourth of parents who indicated they definitely planned on their child attending college also expressed an interest in the child preparing for a skilled trade. The more certain parents were that their child would attend college, the less interest they seemed to have in the child preparing for entry into a skilled trade requiring high school and/or trade school and sometimes junior community college work plus a period of several years' apprenticeship.

TABLE 41

CERTAINTY OF COLLEGE ATTENDANCE BY INTEREST IN PREPARATION FOR A SKILLED TRADE

Interest in Preparation for Skilled Trade	Plan for College by Percent							
	Definitely		Probably Attend		Uncertain		Probably Not Attend	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Yes	26	23	46	44	66	50	60	38
No	45	54	14	25	4	11	3	28
Uncertain	28	23	40	31	30	39	35	33

Semi-professional, Technical, and Business Occupations. The nature of the American economy has been changing under the impact of automation and technology for the past thirty years. While the number of persons engaged in professional and managerial occupations has increased from 6 percent in 1930 to over 15 percent today (and will probably reach 20 percent by 1970), the number of persons in semi-skilled, unskilled, and farm occupations has decreased from nearly 60 percent in 1930 to less than 25 percent today (and will probably decrease even further to less than 20 percent by 1970). Clerical and sales jobs have stayed about steady (17 percent), as have the skilled trade occupations (12 percent). The most significant change has occurred in the middle level occupations - those between the professions on the one hand and the skilled (manual) occupations on the other. This "middle manpower" group has increased from only 6 percent of the labor force in 1930 to about 20 percent of the labor force today, and all indications point to further gains and a probable 30 percent share of the labor force by 1970. Obviously, such dynamic changes in occupational structure have serious implications for education, and particularly for post-high school education, since the demands of most of the semi-professional and technical jobs cannot be met by education and training at the high school or vocational school level.

Of all parents, 41 percent indicated they were definitely interest in their child preparing for entry into a semi-professional, technical, or middle level business occupation which usually requires two years of college level education and training, 36 percent were "uncertain", and 22 percent responded negatively. Responses between parents of boys and girls did not differ significantly. Twenty-one percent of parents in a professional occupation and 43 percent in non-professional occupations would be interested in their child preparing for a job of this level and type. Forty-eight and 20 percents respectively would not be interested while 31 and 36 percents respectively were "uncertain".

An analysis was made to determine the relationships between how certain parents were their child would attend college and interest they expressed in the child preparing to enter a semi-professional, technical, or middle level business occupation. These data are shown in Table 42. It can be seen that of parents who indicated definite certainty that the child would attend college, 34 percent expressed interest in having the child prepare for a technical level job, 37 and 38 percents respectively of boys' and girls' parents expressed no such interest and 28 and 27 percents respectively were uncertain. The rest of the table is to be interpreted likewise. Of interest in this analysis are parents' responses, particularly those of boys who indicated their child would probably not attend college. Of these parents 45 and 12 percents of boys' and girls' parents respectively also indicated interest in having their child prepare for this type of job. Slightly over half the parents who felt their fifth grade child would probably attend college also expressed interest in the child preparing for a technical, semi-professional or middle level type business occupation. Of girls' parents who were uncertain about whether their girl would attend college 42 percent indicated definite interest in having the girl prepare for a technical level type job.

TABLE 42

CERTAINTY OF COLLEGE ATTENDANCE BY INTEREST IN PREPARATION FOR A SEMI-PROFESSIONAL, TECHNICAL, OR MIDDLE LEVEL BUSINESS OCCUPATION

Interest in Preparation for Technical Level Jobs	Plan for College by Parents							
	Definitely		Probably Attend		Uncertain		Probably Not Attend	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Yes	34	34	47	56	7	42	45	12
No	37	38	46	14	8	9	46	46
Uncertain	28	27	26	29	34	49	40	41

Parents of fifth graders were then asked to indicate whether or not they were interested in their child's preparing for entry into any one of twenty-five different semi-professional, technical, and business occupations, requiring two years of college level education and training. Since the responses were divided among so many different occupations, percentages were not as significant as absolute numbers. Table 43 contains data on the numbers of parents interested in two-year college programs of education and training for middle-level manpower occupations for their children.

Educational programs indicated by parents' interest for their children are (1) business education with emphasis upon secretarial science, (2) nursing, (3) agriculture, (4) mechanical technology, (5) electronic technology, and (9) automotive technology. Architectural drafting and dental technology were next in order of expressed interest.

TABLE 43

EXTENT OF PARENTAL INTEREST IN SEMI-PROFESSIONAL, TECHNICAL AND BUSINESS OCCUPATIONS FOR THEIR CHILDREN (REQUIRING TWO YEARS OF COLLEGE)

Occupation	Number and Percent of Parents Checking		Occupation	Number and Percent of Parents Checking	
	Percent	Number		Percent	Number
Accounting	.6	16	Mechanical Tech.	2	43
Agriculture	2	52	Music	1	31
Architectural Drafting	.6	15	Nursing	4	115
			Radio-TV Tech.	.3	9
Automotive Tech.	.7	18	Refrigeration & Air Conditioning	.3	7
Banking	.1	2			
Chemical Tech.	.4	10	Retailing	-	1
Dental Tech.	.6	15	Salesmanship	.4	10
Drafting	.2	6	Secretarial Science	3	69
Electronic Data Processing	.9	23	Surveying	-	1
Electronics Tech.	1	31	X-ray Tech.	.1	4
Homemaking	.5	14	Undecided	15	390
Laboratory Tech.	.8	21	Other	10*	269
Library Tech.	.3	7	Not interested in these fields	1	26
Medical Tech.	1	29			
			No Response	53	1,411

*No concentration in any one field except teaching which is a profession.

Parental Interest in Professional Careers for Their Children. As a check on the information presented in Table 36, (Further Education Planned for Children) parents were asked if they were interested in their child preparing for a profession. It was explained that such preparation requires graduation from college and frequently one or more years of graduate work. Results are shown in Table 44.

The results of this compilation do not quite support data presented in Table 36. Fifty-two percent of the respondents said they "planned on" having their child complete a four-year college program. And here, 43 percent say they are "interested in" their child's preparing for a professional career; 35 percent are uncertain. Since college graduation is necessary for a professional career today, the discrepancy between data in Table 36 and Table 44 implies the need for some realistic parental orientation and information. About 7 percent more parents of boys than of girls expressed definite interest in their child being prepared for a professional career.

TABLE 44

PARENTS' OPINIONS ON CHILD'S PREPARING FOR A PROFESSIONAL CAREER

Responses	Percents		
	Boys	Girls	Both
Yes	46	39	43
No	16	26	21
Uncertain	37	34	35
No Answer	1	1	1

Responses on parental interest in a profession for their child were analyzed according to whether the parents' occupation was professional or non-professional. Three-fourths of the parents in a professional occupation compared to 40 percent in a non-profession expressed interest. Nineteen percent of the professional and 37 percent of the non-professional parents were "uncertain", while 6 percent of the former and 22 percent of the latter groups respectively indicated no interest.

Certainty of college attendance expected by parents of their children was analyzed against interest in having the youth prepare for a profession. These data are presented in Table 45. It can be seen that 69 and 67 percents of parents of boys and girls respectively who indicated the child would definitely attend college also expressed interest in having them prepare for a professional type occupation. Twenty-three percent were uncertain about the child preparing for a profession. Of parents who were uncertain as to their child attending college 82 percent indicated they were either not interested in the child preparing for a profession or uncertain about the matter. About 9 of every 10 parents who indicated their child would not attend college also felt the same way. Nearly 4 of every 10 who thought their child would probably attend college indicated interest in the child preparing for a profession and about 47 and 37 percents of these boys' and girls' parents respectively were uncertain as to interest in having the child enter a profession. In general it would seem that parents who express higher degrees of certainty that their child will attend college also in larger proportions express interest in having the child prepare for a profession.

TABLE 45

CERTAINTY OF COLLEGE ATTENDANCE BY INTEREST IN PREPARATION FOR A PROFESSION

Interest in Preparation for a Profession	Plan for College by Parents							
	Definitely		Probably Attend		Uncertain		Probably Not Attend	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Yes	69	67	40	38	18	16	10	7
No	6	10	12	24	29	35	63	68
Uncertain	23	23	47	37	53	47	26	25

Extent of Interest in Eastern Iowa Community College. Having explored a number of related questions, all of which have contributed significant information in the preceding pages, parents were asked the specific question, "Is it your intent that one or more of your children would attend one or more of the three campuses (Scott, Clinton, Muscatine) of Eastern Iowa Community College?" Results are presented in Table 46.

TABLE 46

PERCENTS OF PARENTS WITH INTENT THAT THEIR CHILDREN WOULD ATTEND AN EASTERN IOWA COMMUNITY COLLEGE CAMPUS

Intent of Parents	Parents of Boys	Parents of Girls	Both
Yes	40	38	39
No	16	19	17
Uncertain	44	42	43
No Answer	-	1	1

It can be seen that 40 percent of boys' parents and 38 percent of girls' parents indicated it was their intent that one or more of their children would attend an Eastern Iowa Community College campus; 43 percent were uncertain. Seventeen percent responded negatively. Whereas the college was of interest to 16 percent of the seniors studied in high schools, 40 percent of parents of younger children indicated an intent for their children to attend Eastern Iowa Community College. The large uncertain group may be waiting to see how the College program develops and how economic conditions prevail.

Of professional parents, 22 percent intended that their child would attend Eastern Iowa Community College compared to 41 percent of fathers in non-professional work. Thirty percent of the former indicated a negative response compared to only 16 percent of the latter.

It was thought important to ascertain if intent that one or more children might attend an Eastern Iowa Community College differed by location of fathers employment. Percents of respondents indicating one of their children would attend one of the campuses were as follows: Clinton - 46, Scott - 31, Muscatine - 63, Cedar - 57, Louisa - 46, Illinois - 32, other location - 14. Percents of respondents indicating a child of theirs would not attend the community college were as follows by place of fathers work: Clinton - 16, Scott - 20, Muscatine - 8, Cedar - 14, Louisa - 17, Illinois - 16, other location - 37. The rest were uncertain. Of the five Iowa counties, the lowest percentages of fathers working in Scott indicated their child would attend an Eastern Iowa Community College campus and the highest percent indicated their child would not do so. The fact that 49 percent in Scott County were uncertain might indicate an attitude of wait and see what develops.

The Extent of Financial Planning for College Attendance. Two purposes were intended in asking for information about financial planning for college attendance. First, it was desired to check this information against plans to send their child to college as indicated in Table 38 to ascertain what degree of realism might have entered into the responses on which Table 38 is based. A secondary purpose was to cause parents to think about the necessity for fiscal planning for the college education of their children. The question asked parents to "describe the current status for their planning for the financing of the college education" for their children. The results are given in Table 47.

TABLE 47

CURRENT STATUS OF FINANCIAL PLANNING FOR CHILDREN'S COLLEGE EDUCATION

Kinds of Financing Plans	Parents of Boys	Parents of Girls	Both Groups
Do not expect child to continue after high school	2	5	4
No Plan at present	52	52	52
Have definite educational savings program	33	30	31
Help child to win a scholarship	10	8	9
Armed Service School	1	1	1
No Answer	3	4	3

The results are not very encouraging. Over half had no plan at present for financing their child's education. Only one parent in three is really "planning" on sending his children to college, in spite of the data from Table 36, which indicated that about 67 percent planned on either two years or four years of college for their fifth grade child. It is probably the unusual parent indeed (or wealthy ones) who can realistically plan his family budget to have enough money saved up to defray the college expenses of all his children. Attention is again called to the differences between the group of parents with male children and the group with female children.

In summary, it would seem from this study that hundreds of youth might be unable to attend college for financial reasons alone if they did not attend a college in the local area including Eastern Iowa Community College. Tuition costs at four-year colleges and universities are rising each year and it is unrealistic to hope that the financial situation will ease in the future.

Parents Interested in Further Education. One of the recognized functions of community colleges is to provide specialized occupational education and general education for the adults of the community. Some of this work may carry "college credit"; other courses are offered solely for the purpose of job training or job up-grading. Many community and junior colleges are participating actively in the Federally-supported programs in manpower development and re-training, which help the employed to acquire a higher level of skill, or a completely new skill in order to become once more participating members of the labor force.

The sample population of fifth grade parents was asked to indicate in what additional education they would be interested. Findings are presented in Table 48.

TABLE 48

PARENT INTEREST IN ADDITIONAL EDUCATION

Type of Interest	Percent of Parents Interest for Reasons Listed					
	Boys		Girls		Both	
	Fathers	Mothers	Fathers	Mothers	Fathers	Mothers
None	34	32	34	32	34	32
Want course for job improvement	27	11	27	12	27	12
Want courses to apply to college degree	7	12	6	12	7	12
Want courses for self-improvement	14	27	13	28	14	27
Work on high school diploma	9	12	9	10	9	11
No answer	8	7	9	5	9	6

It can be seen that 34 percent of the fathers and 32 percent of the mothers indicated no interest in any further type of education. Twenty-seven percent of the fathers were interested in further education for job improvement purposes as were 12 percent of the mothers. The largest group, about 27 percent of the mothers, were interested in further education for self-improvement purposes, but only 14 percent of fathers were interested for this reason. Only about 7 percent of fathers and 12 percent of mothers expressed interest in courses which could apply to a college degree. About 10 percent want to work on a high school diploma.

Data was analyzed to determine how present interests of fathers in further education might vary according to the areas in which they worked. Data is presented in Table 49. It can be seen, for example, that 37 percent of fathers working in Clinton County expressed no interest in further education while 7 percent wanted courses for job improvement purposes and 31 percent wanted them for self-improvement. The largest percents of fathers interested in courses for job improvement were working in Scott County, Illinois, and Muscatine County. Except for fathers working in Cedar County, nearly three of every ten were interested in courses for self-improvement. In Cedar County, 27 percent were interested in work toward a high school diploma compared to 14 percent working in Clinton, Scott, and Muscatine Counties and 12 and 13 percents respectively working in Illinois and in Louisa County. Of fathers working in Louisa County 51 percent indicated no interest in further types of education compared with about 35 percent working in the rest of the area.

TABLE 49

PRESENT EDUCATIONAL INTERESTS OF FATHERS BY PERCENT ACCORDING TO LOCATION OF WORK

Type of Interest for Courses	LOCATION					
	Clinton County	Scott County	Muscatine County	Cedar County	Louisa County	Illinois
None	37	34	36	38	51	33
Job Improvement	7	11	9	5	7	11
Apply on College Degree	5	7	9	11	-	8
Self-Improvement	31	28	27	16	26	28
High School Diploma	14	14	14	27	13	12
No Response	6	6	5	3	3	9

Parents were asked in which of several types of educational programs they might have interest. These data are presented in Table 50.

TABLE 50

FIELDS OF INTEREST TO PARENTS

Occupational Field	Number		Occupational Field	Number	
	Mother	Father		Mother	Father
Accounting	97	93	Mechanical Tech.	2	181
Agriculture	7	189	Music	77	21
Architectural Drafting	6	27	Nursing	211	2
			Radio-TV Tech.	5	64
Automotive Tech.	1	95	Refrig.&Air Cond.	0	44
Banking	12	18	Retailing	21	23
Chemical Tech.	0	17	Salesmanship	17	141
Dental Tech.	12	4	Secretarial	333	1
Drafting	1	31	Surveying	3	15
Electronic Data Processing	42	70	X-Ray Technician	22	6
			Undecided	218	225
Electronics Tech.	2	75	Other	144*	124*
Homemaking	259	1	Not Interested In These Fields	435	477
Laboratory Tech.	28	7			
Library Tech.	51	3	No Response	599	678
Medical Tech.	41	13			

*No concentration in any one field.

Educational programs of interest to mothers are (1) secretarial, (2) homemaking, (3) nursing, (4) accounting, (5) music, (6) library technology, (7) electronic data processing, and (8) medical technology. Of interest to fathers are (1) agriculture, (2) mechanical technology, (3) salesmanship, (4) automotive technology, (5) accounting,(6) electronics technology, (7) electronic data processing, and (8) radio-TV technology. Also of interest to mothers would be programs in retailing, salesmanship, X-ray technology, and laboratory technology. Additional programs of interest to fathers would be refrigeration and air conditioning technology, architectural drafting, drafting, retailing, chemical technology, and surveying.

An analysis was made of fathers' interests in an occupational field in which they would be most likely to have interest for further study and location of work. This was done because the highest percent of fathers interested in further education were interested for job purposes. Listed on following page in order of amount of interest expressed are the top four occupational fields cited by fathers working in each location.

Clinton

1. Agriculture
2. Electronics Technology
3. Mechanical Technology
4. Accounting

Muscatine

1. Agriculture
2. Salesmanship
3. Mechanical Technology
4. Automotive Technology

Louisa

1. Agriculture
2. Automotive Technology
3. Accounting
4. (Equal interest in Banking, Surveying, X-ray Tech., Electronics Tech., and Radio-TV Tech.)

Scott

1. Mechanical Technology
2. Salesmanship
3. Agriculture
4. Accounting

Cedar

1. Agriculture
2. Salesmanship
3. Mechanical Technology
4. Automotive Technology

Illinois

1. Mechanical Technology
2. Automotive Technology

3.-4. (Equal interest in Salesmanship, Electronics Tech., Agriculture, Accounting, and Electronic Data Processing)

Such a priority of interest by geographical location of work may give clues as to where certain types of programs could best be offered in a multi-campus organization.

Summary and Conclusions. Data presented in this chapter seems to warrant the following summary and concluding statements.

1. Scott County appears to be the focus of economic activity in terms of where the largest percent of parents are employed.

2. Only 12 percent of the employed men respondents and 1 percent of the women worked in Illinois. Three-fourths of all mothers were unemployed compared to 1 percent of men.

3. The area is characterized by a relatively stable population as indicated by the facts that two-thirds of all respondents had lived in the area over ten years and 80 percent had been there five years or more.

4. A third of the fathers and a fourth of the mothers were not high school graduates. Three of every ten fathers and two of every ten mothers had had college level educational experiences. Seventeen percent of the fathers and 8 percent of the mothers were college graduates.

5. It would seem opportunities for adults to complete high school and to pursue programs beyond that level would be of interest in the area.

6. Fifty-two percent of all parents indicated they planned for their child to complete a four-year college degree; 36 percent more planned for their child to complete a two-year community college or a trade or vocational school program.

7. Parents plan for higher levels of education for boys than for girls.

8. About 88 percent of all parents felt that higher education opportunity should be for all persons who have ability to profit from it regardless of financial means. Only 1 percent would limit such opportunity to those with superior ability and 7 percent would limit opportunity to those with ability who had money. This finding evinces a wholesome attitude of people in the area generally about who should be educated.

9. Slightly over two-thirds, 68 percent, of parents indicated their child would definitely or probably attend some college at a later date and 26 percent were uncertain.

10. Of parents working in a profession, 64 percent definitely planned on their child attending college compared to 35 percent not in a profession.

11. Certainty that a child would attend college was found to vary among the several counties in which fathers worked.

12. About 37 percent of parents who felt their child would definitely attend college also indicated the child would attend Eastern Iowa Community College as did 46 percent who thought the child would "probably" attend college. So far as parents are concerned, approximately four of every ten children who would probably or definitely attend college would attend the community college and about four out of ten were uncertain.

13. Forty-one percent of parents indicated interest in having their child prepare for entry into a skilled trade, 41 percent expressed interest in having the child prepare for entry into a semi-professional, technical, or middle level business occupation, and 43 percent expressed an interest in having the child prepare for a profession.

14. Higher percents of parents who were less certain their child would attend college and who were not in a profession expressed interest in having their child prepare for entry into a skilled trade or a semi-professional, technical or middle level business occupation than parents who were professional and had higher feelings of certainty that their child would attend college.

15. Educational programs of interest to children as indicated by parents were (1) business education with emphasis upon secretarial science, (2) nursing, (3) agriculture, (4) mechanical, (5) electronics technology, (6) medical technology, (7) electronic data processing, (8) laboratory technology, (9) automotive technology, (10) architectural drafting, and (11) dental technology.

16. Thirty-nine percent of all parents expressed interest that their child would attend an Eastern Iowa Community College Campus. Of professional parents, 22 percent intended that their child would attend the community college compared to 41 percent of fathers in non-professional work.

17. Of interest to the community college should be the fact that a lower percent of fathers working in Scott County than any other area indicated their child would attend the college and half were uncertain. Perhaps this is a wait-and-see attitude about the college development.

18. Fifty-two percent of all parents had no plan at present for financing the college attendance of their child. Thirty-one percent had a definite educational savings plan.

19. A third of the parents had no interest in further education for themselves but 27 percent of fathers were interested in courses for job improvement and the same percent of mothers were interested in courses for self-improvement purposes.

20. Interests in further education for themselves varied according to geographical areas in which fathers worked.

21. Educational programs of interest to mothers were (1) secretarial, (2) homemaking, (3) nursing, (4) accounting, (5) music, (6) library technology, (7) electronic data processing, and (8) medical technology. Of interest to fathers were (1) agriculture, (2) mechanical technology, (3) salesmanship, (4) automotive technology, (5) accounting, (6) electronics technology, (7) electronic data processing, and (8) radio-TV technology. Also of interest to mothers were retailing, salesmanship, X-ray technology, and laboratory technology. Additional interests of fathers were refrigeration and air conditioning, architectural drafting, drafting, retailing, chemical technology, and surveying.

CHAPTER IV

A STUDY OF RECENT HIGH SCHOOL GRADUATES

In assessing the educational needs of an area for post-high school programs, studies of school attendance patterns and data which graduates can provide are significant. Assuming the graduates of previous years in an area are similar to those who will follow for a few years, considerable confidences can be placed upon this source of information. Patterns of occupational and educational pursuits, residential distribution, characteristics, and interests are not likely to vary markedly with future groups of graduates, barring a major political or economic change, except in a relatively slow fashion.

Methods of Studying Graduates. Lists of high school graduates were obtained from all high schools in the area studied for the year 1963. Names were alphabetized by sex for each district or school, and a random sample stratified by sex and district was selected for contact by questionnaire mailing. These names were then submitted to the respective schools for addresses. Questionnaires were prepared in final form by members of the Citizens Sub-Committee on Program Needs after they had contacted their respective high school counselors and principals for suggestions.

During the fall of 1966, 793 questionnaires were mailed to graduates, with a cover letter and an enclosed stamped and addressed returned envelope. In about three weeks following the initial mailing, a second questionnaire and letter were forwarded to those who had not responded to the first invitation for assistance and cooperation. Responses were received from 36 percent or 289 of the graduates concerned. The return represents a 12 percent random sampling of all seniors graduating during that year. An analysis of non-responses revealed that they were evenly distributed by sex and district. There is no reason to suspect bias in responses related to these factors.

Marital and Residential Status of Responding Graduates. Of all responses to the study, various percents were from the different geographical areas as follows: Clinton County - 10 percent, Scott County - 40 percent, Muscatine County - 13 percent, Louisa County - 1 percent, Cedar County - 1 percent, Illinois - 1 percent, other location - 33 percent. Percents throughout this study have been rounded to the nearest whole number so totals vary from 99 to 101 percents. Two-thirds of all respondents lived within the area serviced by Eastern Iowa Community College. With two-thirds of the high school graduates becoming residents of the area, one might expect attitudes developed about the high schools they attended to be heavily reflected in the adult population. Twenty-four percent of all respondents left their home county within a year following graduation from high school. This was the case for a fifth of the boys and 27 percent of the girls. Fifty-two percent had never left and continued to live in the county where they had graduated from high school. Of the respondents who had moved out of the County, 39 percent did so in less than three years, and 9 percent left after three years.

About 38 percent of the responding graduates were married; 35 percent of the men and 42 percent of the women were married. Sixty-one percent of the men and 58 percent of the women respondents had never been married. Two percent had been divorced, separated, or had the marriage broken by death.

Economic and Occupational Status of Graduates. Of all respondents, 47 percent were employed full-time, 17 percent part-time, and 34 percent were unemployed. Larger percents of men than women were employed full-time on a paying job and larger percents of women than men were employed part-time. Of the unemployed, 56 percent were in school at the time of the study and 76 percent reporting not being employed in a paying job had attended a college or university.

An analysis of interest in further education according to employment status revealed that 77 percent of the men and 63 percent of the women expressing present interest were employed either full- or part-time. Two-thirds of the men and 47 percent of the women who were unemployed expressed present interest in further education. A third of the men and over half the women with no interest in further education were unemployed. Of all responding graduates, 45 percent of those without interest in further education were unemployed with 75 percent of these being women, while only 29 percent of all graduates having interest in further education are unemployed with 56 percent of them being women.

Eight percent of all graduates reported earnings of less than $200 per month, 21 percent reported between $200 and $400, and 23 percent reported over $400 monthly income. Forty-eight percent did not respond to the question on earnings.

Educational Backgrounds of Graduates. Types of high school curricula completed by respondents are shown in Table 51. It can be seen that 53 and 67 percents of male and female respondents respectively, or a total of 55 percent of both, completed a college preparatory curriculum. About a fifth followed a general curriculum. Twenty-six percent of the girls majored in business while 14 percent of the boys majored in shop or agriculture. Over three-fourths, 75 percent, took a high school program other than one designed to prepare for job entry.

TABLE 51

PERCENT OF GRADUATES BY HIGH SCHOOL CURRICULUM

Type of Curriculum	Male	Female	Both
College Preparatory	53	57	55
General	29	13	21
Business	2	26	14
Agriculture	3	1	2
Technical or Shop	11	-	6
Homemaking	-	1	.7
Other	1	1	1

Twenty-two percent of the males and 41 percent of the females, or a total of 31 percent of all respondents indicated they had taken some vocational education in high school to prepare them for a job after high school graduation. Of those who did not, 69 percent indicated the reason was that they had other plans for their future. Fourteen percent indicated the reason they had not taken any vocational education in high school was the specific occupational course they wanted was not available; 11 percent indicated vocational education was not offered at their high school. Six percent did not see the value of vocational education. Of the respondents with no type of further education beyond high school, 22 and 62 percents of men and women respectively had taken vocational education in high school to prepare themselves for a job.

School Attendance and Interests in Further Education. Of all responding graduates, 6 percent of the boys and 9 percent of the girls, or about 8 percent of all graduates had received no additional training or education. Twenty-seven and 21 percents respectively of the men and women graduates, or a total of 24 percent had received on-the-job training at the place where they were employed. Two percent of the boys and 8 percent of the girls had attended a business college, while 13 percent of both had attended a trade or technical school. Of the respondents, 63 percent had attended a college or university. This included 59 percent of the men respondents and 67 percent of the women. Four percent had taken advantage of an adult education course at a local high school, and 8 percent of the men and 4 percent of the women had taken a correspondence course. Twenty-four percent of the men and 1 percent of the responding women graduates had attended a military service school. Of the men respondents 38 percent were attending school full-time at the time of the study as were 39 percent of the women. Ten percent of the men and 4 percent of the women were attending on a part-time basis, while 52 and 57 percents respectively of men and women were not in attendance at the time of the study.

TABLE 52

TYPE OF TRAINING RECEIVED AND STATUS OF SCHOOL ATTENDANCE BY AREA OF RESIDENCE

Area of Residence	Type of Training After High School				Present Status of Attendance					
	None		College or Univ.		Full-Time		Part-Time		No	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Clinton Co.	8	12	67	71	33	47	17	-	50	53
Scott Co.	7	18	59	51	43	29	9	6	49	65
Muscatine Co.	11	5	44	47	17	21	6	-	78	78
Louisa Co.	100	50	-	-	-	-	-	-	100	100
Cedar Co.	-	-	100	100	100	-	-	-	-	100
Illinois	-	-	100	67	-	33	-	-	100	67
Other Location	-	-	63	90	41	56	11	4	48	40

An analyses was made to determine the relationship between whether a respondent had had no type of further training or education after high school and area of residence. Likewise, a determination was made between area of residence and extent to which youth had attended a college or or university. Status of school attendance at the time of the study by area of residence was also determined. These data appear in Table 52. Observing Table 52 it can be seen, for example, that of respondents from Clinton County, 8 percent of boys and 12 percent of girls had no type of education or training after high school, while 67 and 71 percents, respectively, of boys and girls responding from Clinton County had attended a college or university. Likewise, one can see that of respondents from Scott County, 59 and 51 percents respectively of boys and girls had attended a college or university compared to 44 and 47 percents respectively from Muscatine County.

Shown in Table 52 also are the percents of youth by area of residence who were attending school at the time of the study. It can be seen that of respondents from Clinton County, 33 and 47 percents of boys and girls respectively were in school full-time, 17 percent of boys and none of the girls were attending part-time, and 50 and 53 percents respectively were not in school. Of respondents from Cedar County, all the boys and one of the girls were in school, while all the respondents from Louisa County were in school. Over three-fourths of the respondents from Muscatine County were not in school, but slightly over half of them from Clinton County were not in school. About half the boys and two-thirds of the girls responding from Scott County were not in school.

Of all graduates responding to the study 14 percent had attended or were attending the State University of Iowa, 6 percent the Iowa State University, 6 percent State College of Iowa, 5 percent St. Ambrose College, 3 percent Marycrest and Augustana Colleges combined, 8 percent an Eastern Iowa Community College campus. A third were enrolled in another college or university.

Interests in Further Education. Of all respondents 63 percent indicated they were interested in opportunities for further education or training. Present interest was expressed by 70 and 55 percents respectively of all men and women responding. Of those with no additional training or schooling 56 percent of the men and 23 percent of the women expressed present interest in opportunity for further training or education. Of those who had attended a college or university, 70 and 66 percents respectively of men and women were presently interested in further education.

Of men with no formal education beyond high school, two-thirds would be interested for job improvement purposes, and 22 percent for self-improvement. Fifteen percent of women with no further education beyond high school would be interested for job improvement purposes, and 46 percent for self-improvement. Of all respondents 40 and 33 percents of men and women respectively expressed interest in further education for job improvement purposes. A fourth would be interested in working on a college degree, while 23 and 30 percents of men and women respectively would be interested for self-improvement purposes. Of those who had attended a college or university, 31 percent of the men and 26 percent of the women would be interested for job improvement purposes, while 24 and 27 percents respectively would be interested for self-improvement purposes. Twenty-nine and 35 percents of men and women respectively would be interested in work to complete a college degree.

Of just men and women expressing present interest in further education, 44 and 31 percents respectively were interested in job improvement purposes while 26 and 29 percents respectively were interested for self-improvement purposes. Clearly, for all graduates as a group, for only those expressing present interest in further education and for those having no further education after high school, courses for job improvement purposes ranks first as a reason for their interest in further education. First as a purpose for those having attended a college or university was college degree completion.

Various reasons were given by respondents for not attending school at the time of the inquiry. These are shown in Table 53 by percent of responses to each reason.

TABLE 53

REASONS WHY GRADUATES WERE NOT IN SCHOOL

(1) Reason	Percent of All Graduates			Percent Not Attending School After H. S. Grad.		
	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL
Do not have time	4	1	3	8	3	6
Have a job and don't need more formal education	1	4	2	1	8	5
Financial reasons	11	8	10	20	20	20
Family responsibilities	4	8	6	8	20	13
Not interested	4	6	5	8	15	11
Did not take college preparatory subjects	1	3	2	3	7	4
In military service	16	1	8	29	2	17
Other	13	10	11	24	23	24

Of all graduates, 10 percent indicated financial reasons. This was given by 11 percent of the men and 8 percent of the women. Four percent of the men and 8 percent of the women indicated family responsibilities as a reason for non-attendance. Sixteen percent of the men indicated military service as a reason. Five percent of all respondents were just not interested. Three percent of all graduates indicated lack of time as the reason of greatest importance.

Reasons for not attending school were analyzed for those persons not having attended school after graduation. Thirty-five percent of the women indicated family responsibilities or lack of interest as did 16 percent of the men. Four percent indicated as the reason of most importance that they had not taken a college preparatory high school curriculum. Eight percent of the men and three percent of the women indicated they did not have time. A fifth of both men and women indicated financial reasons for non-school attendance. Of these men, 44 percent indicated that they would have continued their schooling if more financial assistance had been available. Thirty-one percent of the women indicated the same. It appears that lack of finances is an obstacle to at least two of ten men and women who had not attended school after graduation. Of graduates who did not attend school after high school graduation and who were not attending at the time of the study, 53 percent indicated they would have done so if more financial assistance had been available. This included 62 percent of such men and 42 percent of the women. Of the men who expressed present interest in opportunity for further education or training 22 percent indicated they would have continued their education after high school graduation if more financial assistance had been available. Ten percent of the women with such present interest indicated the same. Of graduates presently interested in further education, the largest percents, 12 and 14 percents of men and women respectively, indicated financial reasons as the one of most importance why they did not continue school after high school graduation.

Of graduates responding and presently living in Clinton County, half the boys and 53 percent of the girls expressed interest in opportunity for further training or education. Percentages expressing such interest from the other areas were: Scott County - 69 and 53 percents of boys and girls respectively, Muscatine County - 67 and 33 percents of boys and girls respectively, Louisa County - none, Cedar County - all, Illinois - all. Of boys and girls from other locations, 78 and 66 percents respectively expressed such interests. Generally, regardless of residence location, higher percents of men than women expressed interests in further educational opportunity. Since there was no way of knowing how far these respondents had progressed with their formal education, it was not possible to determine if the educational level of further interest was at the community college or higher levels.

Research evidence on the education of adults indicates that validity of high school grades as predictors of success in post-high school programs decreases as length of time out of school increases. Although not all these graduates would be motivated to attend or would be successful if they did, there is no good way of determining the proportion that would be in either category. Studies in performance of adults and veterans indicate that reference to previous high school grades of those expressing interest would be of little help in ascertaining probability of success for this group in appropriate educational programs compatible with their interests and felt needs.

Factors Related to Current Interest in Education. Analyses presented in the previous chapter on seniors' education plans revealed a relationship between them and perceived parental attitude toward their continuing in school after high school graduation. Higher proportions of youth who believed their parents insisted or wanted them to continue their education had plans for further education than those who believed their parents were either indifferent or negative concerning the matter. A similar analysis has been made for graduates, and the data appears in Table 54.

In Column (2) of Table 54 are shown the percents of all respondents by attitude which they believe their parents to have had about their continuing in college. There appears to be little difference between the sexes, and what little difference there is favors the girls. In general, the fact that over 8 of every 10 youth believed their parents insisted or wanted them to attend college reveals a relatively high level of parental aspiration about youth college attendance. The fact that only 15 percent of the men and 8 percent of the girls reported parental attitudes which were perceived as indifferent or actually negative further points out this condition. The influence of perceived parental attitude may be revealed more clearly in Column (3) which contains data from graduates with no further education of any type compared to those in the group as a whole. It can be observed that none of the respondents with no further education felt parents insisted they go and higher percents felt parents were indifferent compared to the total group of respondents, whereas, of men and women who had attended a college or university 14 and 17 percents respectively indicated parents had insisted on attendance.

TABLE 54

PERCEIVED PARENTAL ATTITUDE AND EDUCATION BEYOND HIGH SCHOOL BY PERCENT

(1) Parental Attitude about College Attendance	(2) All Graduates		(3) No additional training or schooling		
	Men	Women	Men	Women	Both
Insisted I go	10	12	-	-	-
Wanted me to go if I wanted to	73	73	55	69	64
Indifferent	15	8	44	23	32
Did not want me to go	-	2	-	-	-
No response	2	5	-	8	4

From these data one can conclude that (1) there seems to be a slight parental bias favoring the education of girls more than boys and (2) that higher percentages of parents of graduates in the total group insisted or wanted them to continue school than is true of graduates who have had no further education. Further, it appears that a relationship may exist between indifferent and negative parental attitudes and graduates having received no further education.

Adequacy of Educational Opportunity. All graduates were asked to tell what they thought about the adequacy of educational opportunities in their home area. While 39 percent felt it was adequate for all who desire more school, 49 percent of both sexes indicated that even though there was a fair amount of opportunity, not all youth who desire more training find what they want available. Ten percent felt the availability of opportunity was poor. Of graduates having received no further education after high school graduation, 22 and 15 percents of men and women respectively considered as "poor" the availability of opportunities which youth of their area have for post-high school education. Of the men and women, 33 and 31 percents respectively thought there was a fair amount of opportunity but that not all youth who desire more training find what they want available. Forty-four percent of the men graduates and 54 percent of the women felt opportunity was adequate for all who want more school. Of respondents presently interested in further education 13 percent of the men and 9 percent of the women felt opportunities were poor and local youth should have more. Of these men and women 51 and 60 percents respectively felt opportunities were fair but not all youth who desire more training find what they want available. Thirty-four and 31 percents of these men and women respectively felt opportunities adequate.

Attitudes about adequacy of educational opportunities were analyzed according to high school curriculum taken. Thirty-six percent of the boys and 44 percent of the girls having completed the college and university preparatory curriculum felt such opportunities were adequate for all who desire more school. This was the feeling of 35 and 47 percents respectively of boys and girls who completed the general curriculum and 41 percent of the girls who were in a business or commercial curriculum and half the boys in a technical or shop curriculum. Fourteen and 5 percents of boys and girls respectively who completed the college preparatory curricula and 9 and 5 percents respectively who finished in a general curriculum felt local youth should have more available opportunities since present ones were poor. This was the feeling of 6 percent of the boys who had been in a shop or technical curriculum and 14 percent of girls who had majored in business. All others felt that while opportunities were "fair" not all youth who desire more training find what they want available. The largest percents of respondents who felt existing opportunities were poor were girls who had majored in business and boys who followed a college preparatory program.

Types of Further Education of Interest. Graduates were asked to indicate by writing in their answers what type of further education or training they would want if they were presently interested in such opportunity. Of the respondents, 42 men and women indicated an interest in some type of education. Over half, or 22 respondents cited types of education clearly beyond the community college level. Other types of education indicated are shown in the list below, showing the number of respondents indicating each in parenthesis when there were more than one.

Business Administration (2)
Nursing (2)
Social Work (2)
Liberal Arts Courses (4)
Art (2)
Airline Hostess
Home Economics (2)
Dramatic Arts
Public Relations
Instrumental Study
Television Journalism
Correspondence Course

One can conclude that there seemed to be no concentration of expressed interests by respondents which would give a clue as to need for programs.

An attempt was made to ascertain program needs by comparing present types of jobs held by aspirations of respondents for future occupations of interest ten years hence. These data are presented in Table 55. These data include strong aspirations toward one of the professions by both men and women, that women expect to assume the exclusive role of housewife, and that men will no longer be in military service. These data reveal little.

Classified under miscellaneous for jobs in which respondents are currently employed were 34 different jobs involving 84 persons. Thirty-seven persons were unemployed and the other 47 were scattered among 33 different types of jobs. Classified under miscellaneous for jobs in which respondents hope to be working ten years from now were seven occupations in which nine persons would need to be professionally prepared. Expressions of interest in fields for which a community college could provide programs were: (1) managerial work (5), (2) Business administration (3), and Display advertising.

TABLE 55

PERCENT OF RESPONDENTS BY PRESENT JOB AND JOB ASPIRATION

	PRESENT JOB			TYPE OF WORK DESIRED TEN YEARS HENCE		
	Men	Women	Total	Men	Women	Total
Professional other than nursing	.7	3	2	21	25	23
Nursing	-	9	5	-	9	4
Military Service	19	.7	10	-	-	-
Office, Clerical, Secretarial	2	18	10	2	2	2
Housewife	-	-	-	-	22	11
Electricity or Electronics	1	-	.7	2	-	1
Selling, Salesmanship, Waitress	5	1	3	5	.7	3
Drafting & Building Trades	5	-	2	2	-	1
Mechanics or Machine Shop	10	-	5	3	-	1
Agriculture	2	-	1	3	-	1
Factory Worker or Foreman	14	.7	8	4	-	2
Airline Pilot or Hostess	-	1	.7	.7	-	.4
Art	-	-	-	-	1	.7
Run Own Business	.7	-	.4	.7	.7	.7
Lab Technician	2	4	3	.7	3	2
Beautician or Barber	-	3	1	-	.7	.4
Religious Worker	-	-	-	-	1	.7
Dancer, Model, Entertainer	-	.7	.4	.7	.7	.7
Miscellaneous	30	42	36	18	9	14
No Response	7	15	11	37	25	31
Don't Know	.7	-	.4	-	-	-

Perceptions on How Well High School Prepared for College or Employment. Graduates who had attended a college following graduation were asked to indicate how well they felt their high school had prepared them for college work. Others were asked how well they felt their high school had prepared them for employment if they had entered employment on either a full- or part-time basis. The results are presented in Table 56. It can be seen that 8 percent of the men and 1 percent of the women, or 5 percent of both felt their high school education to be inadequate as preparation for college. Likewise, 15 and 5 percents, respectively, of the men and women felt it was inadequate as preparation for employment. Nearly a fifth of all respondents felt their high school preparation for college was inadequate or fair with all of it needing improvement, while 22 percent indicated the same about its adequacy as preparation for employment. Twelve and 13 percents respectively of the respondents felt their high school preparation for college or employment had been excellent. Slightly higher percents of women than men rate higher their high school preparation for either college or employment, but little difference exists between sexes. Men, particularly, do not feel the high school education prepared them very well for employment. About three of every ten men thought that for employment, the high school education was inadequate or fair and all of it could have been better. Fifty-four percent of respondents felt their preparation for college had been very good or excellent and 38 percent felt the same about it as preparation for a job.

TABLE 56

GRADUATES' OPINION ON HOW WELL HIGH SCHOOL HAD PREPARED THEM

Quality of Preparation	For College by Percent			For Employment by Percent		
	Men	Women	Both	Men	Women	Both
Inadequate	8	1	5	15	5	10
Fair, all could have been better	12	15	13	16	8	12
Very good in some ways; could be better in others	39	44	42	29	21	25
Excellent	11	13	12	9	18	13
Have not Entered	19	12	16	19	27	23
No Response	12	15	13	12	21	17

Of respondents with no type of education or training beyond high school, 56 and 54 percents of men and women respectively felt the high school had prepared them in a job very well in some ways but could have done better in other ways. Thirty-one percent of the women in this category felt their preparation had been inadequate or that it had been fair with all of it needing improvement. A third of the men felt their preparation had been fair and 11 percent did not respond to the question. Of graduates who attended a college or university, 55 and 59 percents of men and women respectively felt the high school had prepared them for college very good in some ways but could have been better in others. Twenty-six and 22 percents of men and women respectively felt preparation had been inadequate or fair. Seventeen percent of all felt preparation had been adequate for college.

All graduates were asked if they had decided upon the type of work they wanted to be doing ten years hence. Sixty-nine percent of both men and women had done so. Those that had decided on the occupation they wanted to "settle down in" were asked how much help in making this decision they had received from their high school. Of all the respondents, 37 and 39 percents respectively of men and women, or a total of 38 percent indicated they had "little or no help" from their high school in making the decision. Thirteen percent of the men and 21 percent of the women felt they had lots or considerable help from their high school, while 20 and 24 percents respectively believed they had received "some" help. Of the total group, about six of every ten graduates indicated having received only some or little or no help in this regard from their high school.

Summary and Conclusions: Data presented in this chapter warrant the following summary and conclusion statements:

1. Of the 289 graduates responding, two-thirds lived in the area serviced by Eastern Iowa Community College. Over half had never left the area in which they graduated from high school. Of respondents who had moved out of the county where they attended high school, 39 percent did so in less than three years following graduation.

2. About four of every ten responding graduates were married and 64 percent were gainfully employed. Most unemployed persons were in school and the majority of them were women. Compared to some other areas it seems a tendency for youth to delay marriage and to attend school in larger proportions.

3. Higher percents of men and women who were employed expressed interest in further education than those who were unemployed.

4. Of all graduates responding to the question, the largest percent were earning over $400 per month.

5. Fifty-five percent of all respondents had completed a high school college preparatory curriculum, 21 percent a general curriculum, 14 percent a business curriculum, and 6 percent a technical or shop curriculum. About 4 percent had completed another type curriculum such as agriculture and homemaking.

6. Over three-fourths of all respondents took a high school program other than one designed to prepare for job entry.

7. About 69 percent of graduates who did not take any vocational education indicated the reason was that they had other plans for their future.

8. Of respondents having no further education beyond high school, 22 and 62 percents respectively of men and women had taken vocational education to prepare for a job.

9. Of all respondents 8 percent had received no type of education beyond high school, 24 percent had had on-the-job training, 13 percent had attended a trade or technical school, 4 percent had taken an adult education course, and 63 percent had attended a college or university. Two percent of the boys and 8 percent of the girls had attended a business college, 8 and 4 percents respectively had taken a correspondence course, and 24 and 1 percents respectively had attended a military service school. About 39 percent of all respondents were in school at the time of the study.

10. Eight percent of all graduates responding had attended an Eastern Iowa Community College campus, 34 percent had attended one of six Iowa colleges or universities listed, and 33 percent had attended elsewhere.

11. Seventy and 55 percents of all men and women respectively, or 63 percent of all respondents, indicated present interests in opportunities for further education. This was true for 56 and 23 percents of men and women respectively who had no further education beyond high school and 70 and 66 percents respectively of those who had attended a college or university.

12. Most men are interested in further education for job improvement purposes, while most women are interested for self-improvement purposes.

13. Financial reasons were indicated as the reason of most importance why graduates had not continued in school after high school graduation. Over half of those not continuing indicated they would have done so if more financial assistance had been available.

14. Of men with present interests in further education, 22 percent indicated they would have continued their education after high school if more money had been available.

15. Higher percents of men than women expressed present interest in further education.

16. Perceived parental attitude about school attendance was found related to whether graduates had, in fact, continued their education.

17. About four in every ten graduates felt educational opportunity in their home area was adequate, about five of every ten felt it was fair but not all youth who desire more training than high school find what they want and one in ten thought opportunity was "poor".

18. Comparisons of present jobs held with types of jobs to which they would be interested revealed little. Considering this response a typical sample, one could conclude that programs in business administration and management would be of interest. Nursing and commercial art are areas of exploration.

19. A fourth of the graduates entering employment, and 42 percent of those attending college after high school indicated the high school had prepared them very well in some ways but could have been better in others. Higher percents of men in both groups than women felt their preparation had been inadequate. About the same proportion of both men and women (an eighth) attending college felt their preparation had been excellent. Whereas, of men and women entering a job, 9 and 18 percents respectively felt their high school had been excellent.

20. Sixty-nine percent of all graduates had decided upon the work they would like to be doing ten years hence, and six of every ten indicated they had received only some or little or no help in this regard from their high school.

21. This study is most unusual in that there seemed to be no definite concentration of interests among persons expressing desire for further education, and in the small numbers of such persons who could or would state an interest. The relatively large percent of respondents who had continued their education may indicate a bias in the results in favor of those who had already satisfied their educational needs.

CHAPTER V

EDUCATIONAL NEEDS OF INDUSTRY, BUSINESS, GOVERNMENT AND SELECTED PROFESSIONS

Part I - General

Introduction. A most important aspect of determining the need for post-high school education and training is to ascertain the needs of industry and business for qualified employees. The nature of the occupational structure in America has been changing steadily for the past thirty years. Jobs at all levels are more complex than they used to be. Just as the surgeon today must have at his command far more knowledge and skill than his predecessor of the 1930's had, so must the auto mechanic or the office secretary be much more highly trained than were their counterparts of thirty years ago. In many occupational fields where high school education and training was once the accepted standard, the increased complexity and sophistication of this decade demands technical and general education at the college level.

Although certainly not the only factor to be considered in discussion of a community college program, the provision of specialized education and training to enable youth and adults to attain job competencies commensurate with today's demands is one of the most important factors. This chapter is devoted to the presentation of the results of a survey conducted in the Quad-City area, both in Iowa and Illinois, among industrial and business firms and governmental units. The study sought to determine the nature of jobs in the area and to explore the extent of any interest which employers might have in community college occupational education programs.

The questionnaire used was prepared by the Subcommittee on Industry, Business, and Government Needs and by consultants including directors of vocational education in the local high schools. The instrument was field-tested on several typical firms ranging in size from very large to very small, and was then revised and put in final form. Since the actual size of the labor force of the area and the occupational distribution of workers are factors already known and available from such sources as U. S. Census data, a complete occupational survey of the area was not attempted. It was decided that, in view of the expressed purpose of the study, retail establishments with fewer than ten employees (estimated) would not be surveyed. Professional offices and service establishments were surveyed however, regardless of the estimated number of employees. No attempt was made to gather information on farm employment jobs at the unskilled level.

The questionnaires were distributed in person to the larger firms, but were mailed to the smaller ones. The survey was conducted during the Fall 1967.

Of the 407 questionnaires delivered in Illinois, 190 (or 46.6 percent) were returned. Of these, usable replies were received from 179 firms. Of the 1000 questionnaires delivered in Iowa, 367 (or 37 percent) were returned. Usable returns were received from 546 firms. The firms that cooperated in the study are listed in Appendixes A and A-1. As usual in such studies, some branch organizations (located in the area) of parent companies whose general offices are located elsewhere, declined to participate on the grounds that the divulging of such information violates company policy. Since these large firms employ significant numbers of people in the very kinds of "middle manpower" jobs for which community college technical education programs are planned, the lack of information from them constitutes a serious weakness in the study. However, ample data were obtained to indicate the general nature of education and training demands for the area's labor force, and sufficient number of employer opinions were obtained to give reliable information on how employers feel about post-high school occupational education and the effect it might have on the quality of the work force in this area.

Occupational Distribution of Employees in the Companies Surveyed. Even though a complete occupational survey of the area was not attempted, it is instructive to know the occupational distribution of the work force for the business and industrial firms in the sample. The survey returns were separated into four groups -- those from firms employing fewer than 50 employees in one group; those employing 50-100 workers in a second group; those employing 101-300 workers in a third group; and those employing over 300 workers in a fourth group. The respondents were asked to indicate what type of activities best described the firm about which they were reporting information for the survey. Shown in Table 57 are the numbers of firms responding by category of activity.

TABLE 57

NUMBERS, SIZES AND TYPES OF FIRMS RESPONDING

Type of Activity	(Ill.) Size and Number				(Ia.) Size and Number	
	Under 50	51-100	101-300	Over 300	Large	Small
Agricultural Services	5	2			10	15
Advertising					2	8
Banking and Finance	6	4			7	10
Communication	1	1		1	2	9
Construction	14	1	2		15	31
Education	1	2		1	13	4
Entertainment		1			3	10
Food, Dairy, Drink	6	4	3	1	11	28
Government	6		2	5	4	10
Health, Hospitals	1	1	2	4	11	14
Hotel and Motel		12	1			8
Industrial or Mfg.	10	6	10	16	24	27
Insurance	3	1		2	13	8
Marine Services					1	2
Printing, Publishing			3		4	9
Professional (other than medical or dental)	2				2	4
Real Estate					4	5
Retailing (other than food, dairy, and drink)	20	3			14	54
Service Establishment	4				7	25
Transportation	6		2		5	15
Utilities	1		1	1	6	5
Wholesaling					10	19
Other	5	1*	2		6**	18***

* Building Supplies

** Auto club, credit reporting, physical education, youth program services, meat processing, service and selling water conditioners.

*** Industrial sales, plumbing and heating construction, steel dam reconditioning, veterans' organization, beauty shop, pest control, graphic arts, cemetery, warehousing, wrecking and tree removal, stamp redemption center, photography.

Part II - Illinois

In this part of the chapter are presented the data supplied by Illinois firms responding to the inquiry.

Availability of Qualified Employees and Future Demand. Employers were asked to indicate how available they found the local supply of qualified employees for each of the types of jobs requiring post-high school semi-professional or technical training or experience. In addition, they were asked to indicate how they anticipated the annual rate of employment would change between 1967 and 1972 for each of the technical or semi-professional types of occupations. These data for respondents are shown in Table 58. It can be observed, for example, that one firm employing 51-100 employees in Air Conditioning, Refrigeration and Heating indicated the supply of qualified local employees was scarce. Another respondent failed to indicate a response in availability but both indicated an expected increase in the need for technicians of this type. Only one individual was reported as the average number on the payroll each month this year. Likewise it can be seen that 445 mechanical technicians were employed on the average each month this year, that one small and five large firms agreed the supply of locally qualified persons was "scarce" and that six firms expected an increase in need for such employees, while three felt the numbers would remain the same. The remaining portion of Table 58 is to be read in the same manner.

From the data presented in Table 58, it can be determined that in 90 percent of the smaller (A and B) size firms in which occupations are primarily industrial, the availability of qualified employees is scarce. Availability was judged scarce by 86 percent of the larger (C and D) size firms. None indicated a surplus for any type of industrial type job. Forty-six percent of the smaller firms and 66 percent of the larger ones anticipate an increase in need for employees by 1972 in jobs of this type. None expect a decrease. About 72 percent of the firms employing drafting and design technicians expect an increase and 88 percent of those responding indicated the availability of qualified persons was scarce. While 86 percent of the responding firms employing foremen - first line supervisors - indicated qualified persons are scarce, only 46 percent expected an increase in the demand for such personnel during the next five years. Three-fourths of the firms responding expected an increase in the demand for electronics technicians, and all indicated a scarcity of available qualified employees. Three-fourths of the firms responding that employ industrial engineering technicians expect the demand for them to increase and 80 percent indicate availability of qualified persons is scarce. Two-thirds of the firms responding to the question expect an increase in demand for mechanical technicians, and all indicate a scarcity of qualified personnel. About 61 percent of the respondents to the question expect an increase in demand for time and motion study personnel, and 93 percent indicate qualified personnel are scarce. Chemical technicians were judged scarce, and about 38 percent of respondents employing them indicated an expected increase over the next five-year period. Similar types of information can be derived from data presented regarding other industrial-type occupations.

Of the small size firms employing persons in primarily business occupations, 55 percent indicated a scarcity of qualified employees as did 75 percent of the larger (C and D) firms. Of the smaller firms, 31 percent expected an increase in demand compared to 40 percent of the larger firms. Three-fourths of responding firms employing outside salesmen indicated locally qualified personnel were scarce and 58 percent expected an increase in demand for the future. Slightly over half the firms responding that employ secretaries in positions for which post-high school education is required or desirable, indicated locally qualified persons are scarce. A third expected the demand to increase, but two-thirds indicated the numbers needed will remain about the same. Eighty-four percent indicated a scarcity of data processing technicians and 40 percent expected an increase in demand for them. Over two-thirds of the firms employing accountants indicated a scarcity of locally qualified employees; a third expect an increase in demand. In the area of business management, 53 percent of respondents to this item indicated a scarcity of local employees adequately qualified and 27 percent anticipated an increase in demand. Of the firms engaged in real estate, insurance, or finance, half indicated a scarcity of qualified local employees and 60 percent expected an increase in demand.

In the health sciences, 77 percent of the respondents indicated a scarcity of practical and registered nurses and nearly half the respondents expect an increase in demand. Most respondents expect an increase for medical laboratory technicians, and a scarcity of available locally qualified persons is indicated.

TABLE 58

AVAILABILITY OF QUALIFIED LOCAL EMPLOYEES AND ESTIMATED FUTURE NEED BY NUMBER AND SIZE OF FIRMS

Type of Technical or Semi-Professional Position	Ave. Number On Payroll Each Month This Year	Availability **												Change in Demand **											
		Scarce				Adequate				Surplus				Increase				Same				Decrease			
		A*	B*	C*	D*	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
Primarily Industrial																									
Air Cond., Refrig., Heating Technician	1		1												1		1								
Architectural Draftsman	16		1		1												1		1						
Automotive Technician	10				2												1				1				
Chemical Technician	38	3		2	4									1			2	2		1	2				
Civil and Highway Technician - Surveyor	42	1		1	1												1	1		1					
Drafting and Design Technician	476	3	3	8	16	1			3					3	1	4	15	1	1	3	4				
Electrical Technician	46				2				1								3				1				
Electronic Technician	70	2	1	1	3									1	1	1	3	2							
Foreman - First Line Supervisor	1062	3	6	10	10		2		4					2	3	4	8	1	6	4	9				
Industrial Engineering Technician	284			3	9			1	2							2	10			2	2				
Industrial Technician	56				2												2								
Instrumentation Tech.	15			1	4												5								
Mechanical Technician	445	1			5									2			4	1			2				
Metallurgical Tech.	33				4				2								4				2				
Time and Motion Study	103		1	1	11				1								8		1		4				
Tool Maker	12				1				1									1			2				
Construction Eng.	3																								
Surveyor	3	1												1											
Tool Designer	17		1		1												1		1						
Supervisors	17			1																1					
Apprentice Iron Worker	1																								
Apprentice Carpenter	2																								
Apprentice Bricklayer	2																								
Inspector	10																								
Production Supt.	1																								
Quality Control	75				1																1				
Technical Copy Writer	5								1												1				
Plant Engineer	1																								
Primarily Public Service Jobs																									
Librarian	2								1												1				
Projectionist	1				1																1				
City Planner	3				1													1							
Civil Engineer	4				1													1							
PBX Operator	3						1												1						
TV Director	3		1																						
Copy Writer	4	1	1															1							
Film Editor	2		1																						
Reporter	5		1																1						
Golf Professional	1		1																1						
Radio Announcer	5	1																1							
Newsman	3	1																1							
Radio Salesman	3	1													1										
Radio Director	1	1																1							
Director YMCA-YWCA	9					2												2							

TABLE 58

AVAILABILITY OF QUALIFIED LOCAL EMPLOYEES AND ESTIMATED FUTURE NEED BY NUMBER AND SIZE OF FIRMS

Type of Technical or Semi-Professional Position	Ave. Number On Payroll Each Month This Year	Availability **												Change in Demand **											
		Scarce				Adequate				Surplus				Increase				Same				Decrease			
		A*	B*	C*	D*	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
Primarily Business																									
Accountant	214	1	4	9	14		2	3	8						2	3	9	1	4	9	13				
Advertising and/or Commercial Art	32						1	1	1										1	1	1				
Business Data Processing	152		2	1	13		2		1								8		3		8	1			
Business Machine Operator	43			2	7				2								5			2	4				
Business Management	93	5	6	3	3	5	7	2	1					4	1	1	3	7	11	5	1				
Merchandising	9				1												1				1				
Outside Salesman	146	12	2	4	3	5		2						10	1	2	2	5	1	4	1				
Real Estate, Insurance, or Finance	107	2				1	1							2			1	1	1						
Retail Management and Buying	141	3		2			1							1			1	3	1		2				
Sales Manager	14		2	3		3			2							1		3	1	2	2				
Secretary	288	4	2	5	11	10	5	1	5					4	1	2	9	13	5	5	9				
Executive	7	3				1								1				2							
Production Manager	2	2												1				1							
Credit Manager	2					1								1				2							
Loan Officer	2					1								1											
Supervisor	8	1												1				1							
Management	3			3																1					
Personnel	1			1																1					
Journalist	30			1												1									
Circulation Sales	10							1												1					
Reporters	33			1																1					
Procurement	76				1												1								
Inventory	350				1															1					
Primarily Health Services																									
Dental Office Assistant	1				1																1				
Dental Hygienist																									
Medical Office Assistant	1								1												1				
Medical Lab. Technician	35			2	5											2	3				2				
Nurse (practical)	95			2	4											2	3				1				
Nurse (registered)	511			2	12		1		5							2	5		1		12				
Psychiatric Technician	2			2	1											2	1								
X-Ray Technician	14				3				1								3				1				
Pharmacist	3	1												1											
Receptionist								1												1					
Food Service Management	1							1												1					
Surgical Technician	2								1								1								
Obstetrical Technician	6								1								1								
Medical Technician					1				1								1				1				
Clothing Service Manager	1								1												1				
Sanitarian									1												1				
Primarily Agricultural																									
Golf Green Superintendent	1			1															1						
Service Manager	4	2													2										
Plant Director	1	1													1										
Landscape Foreman																									

A* = Firms under 50 employees; B* = 51-100; C* = 101-300; D* = Over 300.

** = No firms indicated a surplus of qualified workers or a decrease in demand.

Employer Opinions on Types of Job Upgrading Education Needed. Respondents were asked to indicate the types of educational offerings which a community college could provide to help adults upgrade job competencies. These offerings would supplement but not necessarily duplicate existing adult education programs. Respondents were asked to check from a list of 81 different and specific kinds of training, those they believed would be helpful to employees in their firms. Opportunity was provided for each to add other types of specific training which they felt would be helpful. Specific types of training were classified into eleven major instructional areas which appear in Table 59.

In Table 59 incidence of employer responses indicating need for one or more specific courses within the respective areas is shown by percent. Index of demand was computed by determining what percent the number of responses in an instructional area were of the total possible number, provided each respondent had indicated need on each item within the area. For example, there were four specific types of training listed under the instructional area of air-conditioning and refrigeration. If all 179 respondents had indicated need on each of the four specific types of training within this instructional area, there would have been 716 responses possible. Since there were only 31 evidences of need, this represented 4 percent of the total possible for all firms.

Likewise, 6 percent of the firms with under 50 employees indicated need in this area as did 3 percent of firms with 51-100 employees and 5 percent with 101-300 employees.

Viewing Table 59, one can determine that the areas in which the greatest incidence of need appeared were (1) supervisory training, (2) blueprint reading, (3) business education, (4) mathematics, and (5) hydraulics, in that order. Other areas in order of incidence of need were general education (primarily communications skills and applied psychology), mechanics, drafting, electricity-electronics, metallurgy, and air conditioning and refrigeration. Training for all these areas except the last should be given serious consideration. Each of these instructional areas is analyzed following Table 59, and implications in terms of course selection for a trade and technical or semi-professional education program are discussed.

TABLE 59

KINDS OF TRAINING DEEMED HELPFUL FOR EMPLOYEES IN THE OPINIONS OF 179 EMPLOYERS

Major Instructional Area	No. of Employers	91	29	28	31	179
	Size of Firm	Under 50	51-100	101-300	Over 300	Total
Air Conditioning and Refrigeration		6	3	0	5	4
Blueprint Reading		17	10	25	45	22
Drafting		2	4	8	24	7
Metallurgy		3	2	7	19	6
Mechanics		8	9	10	12	9
Mathematics		12	12	11	34	16
Supervisory Training		28	28	50	40	33
Electricity-Electronics		4	5	9	16	7
Hydraulics		6	15	24	27	14
Business		17	23	13	22	18
General		11	10	12	22	13

Supervisory Training

Evidence of the need for supervisory training in terms of its usefulness for upgrading adults ranked first among respondents. The larger firms expressed more demand than did those of smaller size. Consideration should be given to these programs in the over-all planning. Tabulation of the interests of employers for this type of training are shown below with the number of different firms in parentheses:

Supervisory Training -- Foreman Training (65)
-- Administrative Personnel (55)

It is suggested that a special classroom for supervisory training programs be included in the planning of physical facilities. This room should be designed so it lends itself to the use of conference techniques. It should contain those teaching aids and physical facilities which will enable effective presentation of the subject and give experience to students in developing effective practices.

Blueprint Reading

The second greatest index of need expressed by respondents was for blueprint reading. There are various types of blueprint reading such as reading electrical and electronic circuit drawings, jig and fixture blueprint reading, prints for sheet metal duct work, architectural drawings, structural steel and concrete construction prints, and reading drawings for automated equipment. This study did not attempt to discover the specific types of blueprint reading needed, for this is the task of an advisory group when the program is being planned. A total of 40 firms felt training in this area would be useful to adult employees.

As the ability to read prints is a basic requirement for many industrial occupations, it is logical that it would rank high in any program of instruction related to industry. This type of instruction can be provided with or without the use of special equipment, since a conventional type classroom may be used if necessary. However, a drafting room which includes provisions for teaching blueprint reading would be more desirable.

Business

Employers were asked to indicate which of twenty-one specific types of business training would be helpful for their employees. They also were afforded the opportunity to write in any types not included in the listing. Specific business subjects, including secretarial science subjects, were identified a total of 697 times by all employers suggesting one or more of them. Responses are shown in Table 60 for each kind of specific training by size of firm. For example, the reader can observe that 29 firms employing fewer than 50 persons each indicated training in business operations and management. This was true for six firms with 51-100 employees, 8 with 101-300 employees, and 5 firms with over 300 employees. A total of 48 respondents indicated the need for training in business operations and management.

TABLE 60

KINDS OF BUSINESS TRAINING SUGGESTED BY EMPLOYERS FOR JOB UPGRADING

Business Subjects	Number of Employees				Total Number of Employers
	Under 50	51-100	101-300	Over 300	
Operations and Management	29	6	8	5	48
Marketing	12	6	2	3	23
Salesmanship	36	12	4	1	53
Retailing	19	5		2	26
Small Business Mgmt.	16	5	1	2	24
Advertising and Display	10	5	2		17
Real Estate	4	1			5
Math of Finance	12	4	4	6	26
Intro. to Business	16	4	2	5	27
Money and Banking	11	4		2	17
Insurance	10	3	1	2	16
Investments	6	2	1	2	11
Economics of Business	16	9	5	4	34
Statistics	6	2	3	8	19
Data Processing and Programming	9	6	6	17	38
Business Methods and Systems	18	7	5	13	43
Accounting-Bookkeeping	32	13	10	17	72
Business Machines	18	12	6	8	44
Stenography	24	13	7	18	62
Typewriting	27	18	8	14	67
Key Punch Operation	5	5	2	13	25

In order of frequency with which employers indicated specific kinds of business training which would be helpful to their employees the ten subjects for which greatest demand was evidenced are shown below:

1. Accounting - Bookkeeping
2. Typewriting
3. Stenography
4. Salesmanship
5. Operations and Management
6. Business Machines
7. Business Methods and Systems
8. Data Processing and Programming
9. Economics of Business
10. Introduction to Business

Mathematics

Next in order of demand were courses in mathematics. The number of firms indicating different subjects as being useful for job upgrading purposes is shown below in parentheses following the listing shown below.

Basic Mathematics (48)
Applied Business Math (30)
Geometry and Trigonometry (27)
Slide Rule (22)
Technical Math (18)

The demand for mathematics follows the general pattern of courses that may be offered in a community junior college. A community junior college designed to serve industry and business in the Quad-City area should provide courses specified in this group in the total mathematics curriculum. Moreover, these courses should be designed to teach the application of mathematics to industrial and business problems rather than as college mathematics courses preliminary to more advanced courses. Classrooms for these subjects should be designed and equipped to foster such a goal.

Hydraulics

With the development of automated machinery, the demand for hydraulic control equipment has increased to the stage where properly trained mechanics and technicians are needed to operate, maintain, and repair this equipment. They have not always been easy to find. Responses of employers for specific courses in this area are listed below showing the number of firms in parentheses.

Equipment Maintenance (31)
Pumps, Valves, Controls (28)
Fundamentals (26)
Circuits (14)

It is suggested that further information be obtained from advisory groups of employers as to what specifically is needed. Plans should include provision of equipment, shop facilities, and a classroom to give instruction in hydraulics.

General

Various other subjects known to be of interest to business and industry employee competencies were included in the listing. The desirability of these offerings is indicated by the number of firms responding that the course would be useful for job upgrading of their adult employees. Shown by size of firm, these data appear in Table 61.

TABLE 61

GENERAL SUBJECTS OF INTEREST FOR JOB UPGRADING

Subject	Number of Employees				Total
	Under 50	51-100	101-300	Over 300	
Report Writing	22	3	5	14	44
Communications (Speech, Grammar)	25	8	9	11	53
Spelling	19	7	7	8	41
Speed Reading	15	4	5	10	34
Advanced Math	2	3		11	16
Foreign Language				3	3
Chemistry (Gen. & Applied)	2	1	2	4	9
Technical Physics	1		1	4	6
Human Relations (Applied Psychology)	20	10	8	10	48
Social Sciences	6			3	9
Humanities	6		3	3	12
Fine Arts	3			2	5

From data in Table 61, it appears that communications, including grammar and speech, report writing, and spelling rank highest along with human relations (applied psychology). Interest was expressed in speed reading, too. Courses in these basic communication tools and in applied psychology should be offered and emphasized.

Electricity and Electronics

Magnitude of demand for job upgrading education in this field was found to vary in proportion to size of firms with the larger ones expressing greatest need. Specific courses of interest were as follows:

Electrical Equipment Maintenance (28)
DC and AC Fundamentals (24)
Basic Electronics (19)
Industrial Electronic Controls (18)
Transformers, Alternators, Controllers (15)
Electronic Equipment Service (13)
Instrumentation (12)
Electro-Magnetic Control Devices (11)
Tubes and Transistor Circuits (1)
Design of Automated Systems (8)
Communications Electronics (7)
TV and Radio Repair (7)
Computer Servicing (5)
Thermometry and Pyrometry (4)

Electrical and electronics equipment maintenance and service, basic fundamental knowledge, and an understanding of various control and calibration devices constitutes the character of demand. Programs in this field should have cognizance of what may be offered in a pre-technical area high school program which could be provided.

Drafting

Another field of instruction employers deemed useful and which is closely related to blueprint reading is drafting. Interest in specific courses is indicated below. Greatest demand was indicated by firms employing over 300 employees.

Elementary Drafting (21)
Tool and Die Design (21)
Adv. Mechanical (21)
Detailing, Machine and Tool (15)
Machine Design (10)
Plant Layout (8)
Architectural (6)
Auto Body Design (1)

Added to the list by one respondent each was structural drafting and drafting for civil engineers. Services to industry in offering these courses could be provided through the use of one or two drafting rooms. As drafting is also a basic subject, applicable to many industries, further study of the exact needs for these courses is recommended before facility specifications are drawn for housing the program.

Mechanics and Metallurgy

Demand for work in each of the fields of mechanics and metallurgy was greatest from industries employing over 300 employees.

Shown below are the specific types of instruction in these fields which employers felt would be useful to their adult employees for job upgrading.

- Electric Arc Welding (22)
- Inert Gas (Heliarc Welding) (15)
- Acetylene Welding (13)
- Heat Treatment (12)
- Foundry Practice (8)
- Metalography (5)
- Structural Steel and Concrete (4)

Automotive services repair (29), diesel engine repair (14), and farm machinery repair (5), were cited by the respective numbers of respondents shown in parentheses as being useful types of instruction for employees. The College should develop its work in this area taking cognizance of what programs may exist in the high schools.

Air Conditioning and Refrigeration

Below are shown the types of instruction which employers indicated as useful.

- Theory (8)
- Equipment Servicing (13)
- Design and Installation (5)
- Sheet Metal Ductwork (5)

Relatively, demand for instruction in this major instructional area was lowest. Further exploration should be made, particularly in regard to equipment servicing, concerning the need or demand for work in this field.

Employer Practices and Attitudes Having Implications for Program Development. Data on the extent to which business and industry provide organized training programs and the nature of the programs were obtained. In addition, their opinions about adequacy of presently existing educational facilities and satisfaction with high school graduates and non-graduates as employees, were sought. Practice in the employment of high school dropouts and young graduates for job entry was revealed by respondents.

Adequacy of Existing Facilities

Employers were asked the extent to which the existing educational facilities of the Quad-City area meet the occupational and training needs of their company or firm. Of respondents from firms with over 300 employees who expressed opinions, 23 percent felt they meet needs "very well". Fifty-eight percent thought they were met "fairly well", and 19 percent indicated they were met "poorly". Responses of others were as follows:

	Very Well	Fairly Well	Poorly
Under 50	23%	53%	24%
51-100	13%	65%	22%
101-300	8%	72%	20%

Of all respondents, a fifth did not respond to the question, 47 percent felt existing facilities meet their needs "fairly well", 15 percent thought needs were met "very well", and 18 percent thought existing facilities met their needs "poorly". It appears that generally respondents feel the extent to which existing educational facilities meet their needs leaves something to be desired.

Training Programs Offered

Respondents were asked whether or not their company or firm had a formally organized training program. Of the firms employing under 100 employees, 38 percent had such a program compared to 57 percent of those employing over 100 employees. Respondents were asked to indicate what type of program they operated on a formal basis. Of the smaller firms (under 100 employees), 17 percent had apprenticeship programs, 12 percent provided supervision programs, 8 percent had executive development programs, and about 2 percent each had plant management or technician programs. Eleven percent indicated some other type of program such as distributive education, on-the-job training, management training, sales, etc.

Of the larger firms (over 100 employees), 40 percent had apprenticeship programs, 27 percent provided supervision programs, 10 percent had technician programs, 7 percent had a plant management program, and 13 percent had an executive development program. Eighteen percent had some other type of program.

Employment Practice Concerning High School Dropouts and Young Graduates. Respondents were asked to indicate the frequency of job entry employment practice concerning several skill classifications of jobs of young persons who have dropped out of high school before finishing and of young persons who have just graduated from high school. It was felt these data would reveal the extent to which young persons with less than a post-high school level of education could expect, with proper training, to enter gainful employment in the area. In addition, such information is useful in indicating the needs for higher levels of education and training than high school for certain job skill levels as prerequisites for job entry.

Data shown in Table 62 reveal reported employer practice in employing young persons who have dropped out of high school. Percents were based on the total number of firms in each category of size rather than upon the total number of those responding. It can be seen, for example, that only 1 percent of the 91 firms responding that employ under 50 employees, have a common practice of hiring dropouts for highly skilled jobs, business office jobs, or sales jobs. Almost a third of the firms this size employ such people as unskilled labor as a common practice. About an eighth would commonly employ dropouts for service type jobs. While slightly over a fourth of the firms employing over 300 employees employ high school dropouts for service jobs, assembly line and production workers, and machine operators as a common practice, only 10 percent employ them as a common practice for unskilled labor type of work. The remaining part of the table is to be read and interpreted likewise.

Nearly half of all firms "almost never" employ a high school dropout for business office jobs or for highly skilled jobs. Slightly over a third "almost never" employ them for sales jobs or to apprenticeship for highly skilled trades and crafts. About a fifth "almost never" employ them for service or semi-skilled jobs. The job entry employment picture in terms of employer practice looks very bleak and discouraging except for the unskilled labor category. Data of this type should serve as a strong encouragement for high school youth to remain in school.

TABLE 62

PERCENT OF FIRMS EMPLOYING HIGH SCHOOL DROPOUTS BY SIZE OF FIRM AND FREQUENCY OF PRACTICE REGARDING ENTRY EMPLOYMENT

	Frequency of Employment												Total - All Firms		
	Common Practice				Infrequently				Almost Never				Common Practice	Infrequently	Almost Never
Entry Job Category	A*	B*	C*	D*	A	B	C	D	A	B	C	D			
Highly Skilled Jobs	1				2	10	4	6	47	48	50	55	.5	4	49
Business Office Jobs	1				8	7	7	13	46	59	50	48	.5	8	49
Sales Jobs	1	3			10	10		3	35	41	36	32	1	7	36
Apprenticeship for highly skilled trades and crafts	3		4		11	7		10	31	45	39	35	2	8	35
Semi-Skilled Jobs (Assembly line and production workers, machine operators)	9	17	18	26	9	14	11	26	23	21	18	16	14	13	21
Service Jobs	12	17	11	26	14	17	39	16	24	24	7	13	15	19	20
Unskilled Labor	31	38	57	10	12	14	18	10	15	21	11	10	32	13	15

A* = Firms under 50 employees; B* = 51-100; C* = 101-300; D* = Over 300.

Presented in Table 63 are data on employment practices regarding young high school graduates. One can note some interesting differences among firms of different size categories. For example, while a fifth of the firms with under 50 employees commonly employ high school graduates for sales jobs, considerably smaller percents of firms larger than that do so. Likewise, a third of the small firms employ young high school graduates in business office jobs, but a considerably higher percent of larger firms do so as a common practice. Thirty percent of all 179 firms responding almost never or infrequently employ young high school graduates in technician jobs, while 9 percent indicated they did so as a common practice. Likewise, 35 percent of all respondents almost never or infrequently would employ such a person in a highly skilled job, whereas 5 percent reported it a common practice to employ them.

TABLE 63

PERCENT OF FIRMS EMPLOYING YOUNG HIGH SCHOOL GRADUATES BY SIZE OF FIRM AND FREQUENCY OF PRACTICE REGARDING ENTRY EMPLOYMENT

	Frequency of Employment												Total - All Firms		
	Common Practice				Infrequently				Almost Never				Common Practice	Infrequently	Almost Never
Entry Job Category	A*	B*	C*	D*	A	B	C	D	A	B	C	D			
Technician Jobs	7	7	11	19	4	14	7	19	18	28	25	23	9	9	21
Highly Skilled Jobs	3	3	7	10	3	21	4	16	23	31	29	32	5	8	27
Business Office Jobs	32	62	54	55	16	10	18	6	12	3	7	10	39	14	9
Sales Jobs	20	10	4	13	11	21	14	13	19	17	21	23	15	13	20
Apprenticeship for highly skilled trades and crafts	27	17	32	35	4	17	14	19	10	17	4	6	28	11	9
Semi-Skilled Jobs (Assembly line and production workers, machine operators)	15	45	50	58	8	3	14	10	8	3	4	3	33	8	6
Service Jobs	23	66	54	61	7		4	3				3	41	4	8
Unskilled Labor	30	69	57	58	9		7	10	7				47	7	3

A* = Firms under 50 employees; B* = 51-100; C* = 101-300; D* - Over 300.

Not all firms would have each of the types of job categories within the enterprise for which they would employ personnel. Respondents therefore would not have indicated practice for categories of jobs not found within their firm. While it is useful to portray the practice of employment among all firms, as was done in Tables 62 and 63, it is most revealing to determine practice as it is found among only those firms having responded to each type of job category. These data are summarized in Table 64.

TABLE 64

EMPLOYMENT PRACTICE REGARDING YOUNG HIGH SCHOOL DROPOUTS AND GRADUATES

Entry Job Category	Dropouts			Graduates		
	Common Pract.	Infre-quently	Almost Never	Common Pract.	Infre-quently	Almost Never
Technicians Jobs				24	23	53
Highly Skilled Jobs	1	8	91	13	21	66
Bus. Office Jobs	1	14	85	62	23	15
Sales Jobs	3	16	81	31	28	41
Apprenticeship for highly skilled trades, crafts	5	18	77	58	22	20
Semi-skilled jobs (Assembly line, production workers, machine operators)	30	27	43	70	18	12
Service Jobs	28	35	36	78	8	14
Unskilled Labor	54	21	24	82	13	5

Observing Table 64, one can see that of those firms employing personnel for highly skilled jobs, 91 percent almost never employ a high school dropout for this type of job, and 66 percent almost never employ a young high school graduate. Over half, or 54 percent, of all respondents employ as a common practice, high school dropouts as unskilled laborers, and 82 percent employ young high school graduates for the same purpose. Sixty-nine percent of all respondents with sales jobs in their firm almost never or infrequently employ young high school graduates for sales jobs. Over 6 of every 10 firms with business office jobs employ young high school graduates as a common practice. Seventy and 78 percents, respectively, of those firms responding to the question employ, as a common practice, young high school graduates in semi-skilled and service jobs. Observation of these data reveal differences between opportunities for high school dropouts and graduates. Employers indicate they employ young high school graduates least for sales and highly skilled jobs.

Employers were asked to recall employing practices of their firm over the last five year period and to indicate their evaluation of young persons who have applied for entry jobs in their organization. About a third indicated they had employed a number of young non-high school graduates and found them to perform satisfactorily in certain types of jobs. These include jobs of janitor, stock room, simple industrial jobs, assembly line, kitchen help, painters' assistants, all phases of field construction, shipping clerks, sales clerks, clerical, warehouse, light machine assembly, unskilled labor, cashier, bank teller, truck driver, warehouse jobs with much supervision and apprentice programs. Thirteen percent of all firms reported employing young non-high school graduates and finding them to need considerable additional education and training before they can perform satisfactorily. Nearly a fourth reported finding young non-high school graduates unsatisfactory due to weaknesses in speech, writing, mathematics and ability to meet the public. They were characterized as lazy, immature, unconcerned, undependable, restless, unreliable, unable to follow instructions, and as having poor work and personal habits. They are reported to lack initiative, practical knowledge, desire and tact. They cannot assume responsibility, have poor attitudes, want something for nothing, don't have good sense and are unsettled. They have high rates of turnover and absenteeism, and are irresponsible, create discipline problems, and are accident prone.

Forty-five percent of the firms indicated that most young high school graduates who apply seem reasonably well prepared for entry employment, and they have been employed as openings occurred. However, 28 percent indicated a different experience, for they report finding that young high school graduates need a considerable amount of additional education and training before they can perform satisfactorily. Eleven percent of all firms reported they had found it inadvisable to employ young high school graduates except for unskilled jobs. Fourteen percent indicated that the nature of most entry jobs is such that young high school graduates are virtually unemployable because of lack of occupational training.

Responses of employers concerning jobs for which no formal (in school) education beyond high school is required are to be found in Appendixes B-1 through B-3.

Willingness to Cooperate Further. Respondents were asked if they would be interested in participating in further study or discussion at a later time concerning plans for improving occupational education and training at high school and post-high school levels in the Quad-City area. Sixty-one percent of the 179 firms responding indicated they would have a definite interest in doing so. Sixteen percent said "no", and 23 percent did not respond to the question. The percent responding negatively coincides with similar percentages in other studies. The fact that nearly two-thirds of the firms expressed definite interest should be encouraging to educators attempting to develop programs geared to the needs of business and industry.

Needs in Selected Professions. Various attempts were made to get from the dental, legal, and medical professions information on needs for personnel of less then professional level but requiring more than a high school education. The respective professional associations were contacted.

Legal

Several knowledgeable persons in the legal profession replied to the study. In replying to the request, an associate circuit judge said, "... we find competent legal secretaries are in short supply and court reporters throughout the state." A state's attorney, related, "... I would say that training should be offered to train competent legal secretaries." He said further, "For those (secretaries) particularly adept at shorthand and typing I would suggest that there is an increasing need for qualified court reporters." He felt legal secretaries should be competent in grammar, spelling, typing, and shorthand, have a basic working ability in accounting, have instruction in office management, and possess some liberal arts education.

The presidents of the state and local Legal Secretaries Association stated, "We feel there is a need for courses specifically designed to prepare girls to work in law offices, and refresher courses for those already employed as legal secretaries."

Legal secretaries and court reporters seem to be needed.

Medical

The Rock Island County Medical Society was contacted to determine the feeling of its members concerning present and future needs of the medical profession. The president of this group instigated a questionnaire and distributed it to the membership. Fifty-three completed questionnaires were returned.

Medical doctors were asked to indicate which of eight different subjects would be most beneficial in the training or education of receptionists, office secretaries, medical technologists and office nurses. They were asked to suggest additional subjects other than those listed and to suggest also paramedical fields which would be beneficial to their practice.

Types of courses specified as being beneficial for each of the four kinds of office personnel are shown in Table 65 with the number of doctors recommending each course.

TABLE 65

TYPES OF UPGRADING BENEFICIAL TO MEDICAL OFFICE PERSONNEL BY FREQUENCY OF SELECTION

Types of Training	Types of Office Personnel			
	Receptionist[1]	Office Secretary[2]	Medical Technician[3]	Nurse[4]
English	15	13	4	10
Typing	12	12	4	8
Shorthand	3	4		1
Medical Terminology	13	11	5	7
Billing procedures and methods	11	10		4
Filing	10	10	3	5
Telephone etiquette and procedure	15	12	3	8
Limited basic laboratory and X-ray course	2	2	6	6
Dictaphone	2	4		
Simple accounting	4	5		1
Health insurance	1	2		1

[1] Other subjects for study mentioned for receptionist were general etiquette, personal appearance, spelling, psychology, public speaking, interior decorating, office management, general semantics, and Spanish.

[2] Other subjects for study mentioned for office secretary were public speaking, spelling, general etiquette, and personal appearance.

[3] Other subjects for study mentioned for medical technologists included biology, chemistry, physics, mathematics, anatomy, and laboratory techniques.

[4] Other subjects for study mentioned for office nurse were venipuncture, psychology, spelling, general etiquette, and personal appearance.

Evidence would seem to suggest that the possibility of a program for medical secretaries and upgrading work for office personnel in medical offices is needed.

In addition to the four types of personnel, suggestions were made that there was a need for inhalation therapists, surgical technicians, and X-ray technicians. Physiotherapy (basic course) and audiology were suggested as studies to be included. It was suggested that there might be an apprentice program for office personnel and that medical technicians have some part-time work in the hospital laboratory for experience.

Based upon evidence presented here, it would seem that there is a need for pre-service and upgrading work for medical and legal secretaries. Further follow-up discussions would be advisable regarding the need for other types of personnel and the types of programs which may be developed allied with these professions.

Dental

Questionnaires were distributed by the Dental Health and Education Committee of the local Dental Association to 56 dentists. Thirty-five replied to the request for information regarding dental assistants. The respondents employed 61 assistants or receptionists, and of these, 51 had been hired in the last two years by 22 dentists. This was a replacement rate of 83.6 percent.

Dentists were asked to rate on a scale of 1 to 6, the importance of several types of training needed for assistants and receptionists with the rating of 1 being the highest. Average weighted ratings were determined for each item. In order of importance, the types of training were:

(1) Psychology
(2) Business principles
(3) Dental instruments
(4) Personal appearance
(5) Dental terminology
(6) Insurance papers, records

Over half, 57 percent, of the responding dentists indicated they would have time to train such personnel in their office as part of the course. All but one indicated they would hire such trained personnel. No information was provided as to the need for dental hygienists, dental chair assistants, or dental laboratory technicians.

High School Level Vocational Education Needs. Data appearing in Appendix B would seem to support the need for programs available to all high school youth in the area in several fields. They are:

Automobile mechanics
Building trades (carpenter, painter, plumber, welder, electrician)
Machinists and machine operators
Millwrights
Truck drivers
Custodians
Route salesmen
Retail salespersons
Parts stock boy
Bookkeepers
Clerk-typists
Data processing workers
General office workers
Core makers
Assembly line workers
Cooks or chefs

Part III - Iowa

In this part of the chapter are presented the data supplied by firms located in Iowa and responding to the study.

Availability of Qualified Employees and Future Demand. Employers were asked to indicate how available they found the local supply of qualified employees for each of the several types of jobs requiring post-high school semi-professional or technical training or experience. Additionally, they were asked to indicate how they anticipated the annual rate of employment would change between 1967 and 1972 for each of the types of technical or semi-professional occupations. These data are shown in Table 66. It can be observed, for example, that four large firms and one small one employing air conditioning, refrigeration and heating technicians indicated locally available qualified individuals were scarce. One firm of each size believed the availability was adequate. Four large and one small firm felt the demand for workers of this type would remain the same for the next five years, but one firm of each size expected the demand to increase. The average number of these workers on the payroll each month was nine. The remainder of Table 66 is to be read in like fashion.

It can be observed that four large and two small firms employed an average number of 122 chemical technicians each month and that all indicated the availability of locally qualified technicians of this type was scarce. Furthermore, three large and one small firm expected the demand to increase over the next five years, while two thought demand would remain the same. This evidence would seem to indicate the need for an educational program designed to prepare chemical technicians. In the same way needs are exhibited for drafting and design technicians, supervisory personnel (foremen), industrial engineering technicians, and time and motion study personnel.

From data presented, it can be determined that 61 percent of the smaller and 93 percent of the larger firms in which occupations are primarily industrial, the availability of qualified employees is scarce. Only one larger firm indicated a surplus and this was for foremen or first line supervisors. Fifty-two percent of the large firms and 57 percent of the smaller ones anticipated an increase in need for employees by 1972 in jobs of this type. None expected a decrease. Nearly 74 percent of respondents employing drafting and design technicians expected an increase in demand, and 87 percent of those responding indicated the availability of qualified persons as scarce. While 87 percent of the respondents from firms employing foremen -- first line supervisors -- indicated the availability of locally qualified persons was scarce, only 32 percent expected an increase in the demand for such personnel during the next half decade. Half the respondents expected an increase in demand for electronic and electrical technicians, and 71 percent indicated the availability of such workers was scarce. About 90 percent of the firms employing industrial engineering technicians indicated available qualified workers of this type are scarce and half expect the demand to increase. Two-thirds of the firms employing mechanical technicians expect an increase in demand and all indicate a scarcity of qualified personnel. The average number on the payroll of firms responding was 15. Two-thirds

TABLE 66

AVAILABILITY OF QUALIFIED LOCAL EMPLOYEES AND ESTIMATED FUTURE NEED BY NUMBER AND SIZE OF FIRMS

Type of Technical or Semi-Professional Position	Ave. Number On Payroll Each Month This Year	Availability						Change in Demand *			
		Scarce		Adequate		Surplus		Increase		Same	
		Large	Small	Large	Small	Large	Small	Large	Small	Large	Small
Primarily Industrial											
Air Cond., Refrig., Heating Technician	9	4	1	1	1			1	1	4	1
Architectural Draftsman	6	4	-	-	-			2	-	3	-
Chemical Technician	122	4	2	-	-			3	1	1	1
Civil and Highway Technician - Surveyor	1	1	-	-	-					1	
Drafting and Design Technician	113	11	9	2	1			8	9	5	1
Electrical Technician	13	2	1	-	1			2	1	1	1
Electronic Technician	13	2	-	1	-			2	-	3	-
Foreman - First Line Supervisor	412	13	-	1	-	1		6	-	13	-
Industrial Engineering Technician	38	8	-	-	1			5	1	4	-
Industrial Technician	4	-	-	-	-			-	-	1	-
Instrumentation Tech.	4	2	-	-	-			-	-	2	-
Mechanical Technician	15	6	-	-	-			4	-	2	-
Metallurgical Tech.	11	2	-	-	-			2	-	-	-
Time and Motion Study	39	6	-	-	-			4	-	2	-
Processing	40	1	-	-	-			1	-	-	-
Building Superintendent	1	-	-	-	-			1	-	-	-
Manufacturing Engineer	29	1	3	-	6			1	2	-	7
Other	8	1	-	-	-			1	-	-	-
Primarily Public Service Jobs											
Teacher Assistant	5	1	-					1	-	-	-
Entertainment	16	6	-					-	5	-	1
Cosmetology	9	-	1					-	1	-	-

TABLE 66

AVAILABILITY OF QUALIFIED LOCAL EMPLOYEES AND ESTIMATED FUTURE NEED BY NUMBER AND SIZE OF FIRMS

Type of Technical or Semi-Professional Position	Ave. Number On Payroll Each Month This Year	Availability						Change in Demand *			
		Scarce		Adequate		Surplus		Increase		Same	
		Large	Small	Large	Small	Large	Small	Large	Small	Large	Small
Primarily Business											
Accountant	69	13	3	7	8			5	-	13	10
Advertising and/or Commercial Art	17	6	-	3	-			1	-	5	-
Business Data Processing	29	7	-	1	-			5	-	5	-
Business Machine Operator	35	7	-	4	-			3	-	6	-
Business Management	66	3	7	4	2			3	6	7	2
Merchandising	35	4	-	1	-			-	-	4	-
Outside Salesman	311	7	29	4	6			5	25	8	12
Real Estate, Insurance, or Finance	70	2	14	-	-			1	11	1	12
Retail Management and Buying	75	2	14	2	9			2	7	3	15
Sales Manager	39	8	19	7	20			1	1	16	-
Secretary	151	9	-	8	-			8	16	11	20
Executive	15	-	7	-	1			-	-	-	8
Production Manager								-	1	-	-
Writers	7	-	-	-	-			-	-	-	-
Service	26	1	4	-	-			1	3	1	-
Supervisor	25	-	-	1	-			1	-	-	-
Traffic	11	1	1	-	-			-	1	1	-
Adv. Sales	5	-	-	-	-			-	-	1	-
Primarily Health Sciences											
Dental Office Assistant	12	-	-					-	1		
Medical Office Assistant	22	-	-	1	-					1	-
Medical Lab Technician	77	4	5	1	-			4	2	2	3
Nurse (practical)	104	4	1	3	1			4	-	2	2
Nurse (registered)	359	9	1	5	2	1	-	6	-	8	3
X-Ray Technician	23	2	1	5	-			4	-	3	1
Inhalation Therapist	2	-	-	-	-			1	-	-	-
Surgical Technician	50	-	-	-	-			-	-	-	-
Medical Librarian	1	-	1	-	-			-	-	-	-
Primarily Agricultural											
Agricultural Technician	4	-	-	1	2			-	-	1	2
Office Manager	1	-	-	-	-			-	-	1	-

*No respondent indicated a decrease in demand for any type of position.

of the respondents employing time and motion study personnel expect an increase, and all indicated such qualified personnel were scarce. Chemical technicians were judged scarce by all respondents employing them and two-thirds expected an increase over the next five years.

Of the firms employing persons in occupations that are primarily business, 63 percent of the large firms and 68 percent of the small ones indicated a scarcity of qualified employees. Of the larger firms 31 percent expected an increase in demand for the near future compared to 47 percent of the smaller firms. About 78 percent of the firms employing outside salesmen indicated locally qualified persons were scarce, and 60 percent expected an increase in demand for the future. Over 300 employees of this type were reported on the payroll each month on the average. Slightly over half the respondents reporting the employment of secretaries in positions for which post-high school education is required or deemed desirable indicated locally qualified persons are scarce. Forty-four percent expected the demand to increase for secretaries, and 56 percent expected the demand to remain the same. All firms employing persons to work in real estate, insurance or finance indicated locally qualified personnel was scarce, and 48 percent of those responding to the question expected an increase in demand. Sixty percent of the firms employing persons in retail management and buying felt the availability of qualified persons was scarce and only a third expected an increase in demand. Approximately 88 percent of firms employing business data processing employees cited a scarcity of qualified persons available locally and half expected the demand to increase. While about half the firms employing accountants indicated availability of qualified personnel was scarce, only 18 percent expected an increase in demand. In the area of business management, 63 percent of the respondents to this item indicated a scarcity of qualified local employees available, and half anticipated an increase in demand. The average number of persons in these jobs per month among respondent firms was 66.

In the health sciences 56 percent of the respondents indicated a scarcity of practical and registered nurses and 40 percent expected the demand to increase. Over half the respondents employing medical laboratory technicians expect the demand for them to increase and 90 percent of these respondents indicated a scarcity of locally qualified employees for this type of job.

Employer Opinions on Types of Job Upgrading Education Needed. Respondents were asked to indicate the types of educational offerings which a community college could provide to help adults upgrade job competencies. Such offerings would supplement but not necessarily duplicate existing adult education programs. Respondents checked from a listing of 81 different specific kinds of training those they believed would be helpful to employees in their firm. Each had opportunity to add other specific types of training which they felt would be helpful. Specific types of training were classified into eleven major instructional areas which appear in Table 67.

Incidence of employer responses indicating need for one or more specific courses within the respective areas is shown by percent of demand. Index of demand was computed by the same method as in Part II of this chapter above.

Viewing Table 67 one can determine that the area in which the greatest incidence of need appeared were (1) supervisory training, (2) blueprint reading, (3) business, (4) mathematics, and general, and (5) mechanics in that order.

TABLE 67

KINDS OF TRAINING DEEMED HELPFUL FOR EMPLOYEES IN THE OPINION OF 546 EMPLOYERS BY PERCENT

Major Instructional Area	N-157 Large	N-389 Small	N-546 Total
Air Conditioning and Refrigeration	3	3	3
Blueprint Reading	11	13	13
Drafting	4	2	3
Metallurgy	3	3	3
Mechanics	5	4	5
Mathematics	7	6	6
Supervisory Training	17	14	15
Electricity - Electronics	4	3	3
Hydraulics	4	3	3
Business	10	9	10
General	6	5	6

With some difference in relative incidence of need between large and small firms the same total emphasis was placed upon all other major instructional areas. Each of these instructional areas has been analyzed above in Part II. Shown here are the specific types of training within each instructional area according to the number of firms indicating each. Numbers are shown in parentheses.

Supervisory Training

Foreman Training	(89)	Administrative Personnel	(58)

Blueprint Reading

Various Options	(60)

Business

Operations and Management	(85)	Investments	(17)
Marketing	(42)	Economics of Business	(43)
Salesmanship	(111)	Statistics	(17)
Retailing	(50)	Data Processing	(37)
Small Business Management	(56)	Business Methods and Systems	(36)
Advertising and Display	(44)	Accounting-Bookkeeping	(93)
Real Estate	(10)	Business Machines	(56)
Mathematics of Finance	(29)	Stenography	(65)
Introduction to Business	(37)	Typewriting	(85)
Money and Banking	(26)	Key Punch Operation	(23)
Insurance	(18)		

In order of frequency with which employers indicated specific kinds of business training which would be helpful to their employees, the ten subjects for which greatest demand was evinced are as follows:

1. Salesmanship
2. Accounting-Bookkeeping
3. Typewriting
4. Stenography
5. Business Machines
6. Small Business Management
7. Retailing
8. Advertising and Display
9. Economics of Business
10. Marketing

Mathematics

Basic Math	(68)	Slide Rule	(20)
Applied Business Math	(30)	Technical Math	(10)
Geometry and Trignometry	(27)		

General

Communications (Speech, Grammar)	(76)	Social Science	(12)
Spelling	(66)	Humanities	(11)
Human Relations	(58)	Technical Physics	(8)
Report Writing	(42)	Foreign Language	(6)
Speed Reading	(28)	Chemistry (Gen.Applied)	(5)
Advanced Math	(12)	Fine Arts	(4)

Communications, including grammar and speech, spelling and human relations (applied psychology) rank highest. Report writing and speed reading were next in order of mention.

Mechanics

Automotive Service Repair	(34)	Farm Machinery Repair	(8)
Diesel Engine Repair	(23)		

Metallurgy

Electric Arc Welding	(30)	Foundry Practice	(8)
Acetylene Welding	(28)	Structural Steel and Concrete	(7)
Inert Gas Welding	(17)		
Heat Treatment	(9)	Metalography	(5)

Drafting

Elementary Drafting	(26)	Plant Layout	(10)
Architectural	(21)	Machine Design	(9)
Tool and Die Design	(13)	Detailing, Machine &Tool	(6)
Adv. Mechanical	(12)	Auto Body Design	(2)

Hydraulics

Equipment Maintenance	(24)	Pumps, Valves, Controls	(19)
Fundamentals	(23)	Circuits	(11)

Electricity and Electronics

DC and AC Fundamentals	(31)	Tubes and Transistors Circuits	(14)
Electrical Equipment Mt.	(31)	Design of Automated Systems	(11)
Basic Electronics	(29)	Instrumentation	(10)
Industrial Electronic Control	(26)	Communications Electronics	(10)
Transformers, Alternators Controllers	(18)	TV - Radio Repair	(8)
Electro-Magnet Control Devices	(16)	Computer Servicing	(1)
Electronic Equipment Service	(15)	Thermometry and Pyrometry	(1)

Air Condition and Refrigeration

Equipment Servicing	(23)	Theory	(11)
Design and Installation	(15)	Sheet Metal Duct Work	(11)

Employer Practices and Attitudes Having Implications for Program Development. Data on the extent to which business and industry provide organized training programs and the nature of the programs were obtained. In addition, their opinions about adequacy of presently existing educational facilities and satisfaction they had with employing young high school graduates and non-graduates were sought. Practice in the employment of high school dropouts and young graduates for various types of jobs was revealed by respondents.

Adequacy of Existing Facilities

Employers were asked the extent to which the existing educational facilities of the Quad-City area meet the occupational and training needs of their company or firm. Of respondents from firms of over 100 employees who expressed opinions, 16 percent felt such needs were met "very well". Fifty-five percent thought they were met "fairly well", and 29 percent indicated "poorly". Compared to these responses of small firms, a fifth of those larger felt existing facilities met their needs "very well", 49 percent indicated "fairly well", and 31 percent thought they met needs "poorly".

Of all respondents, 49 percent did not answer the question, 9 percent felt facilities meet needs "very well", 26 percent thought needs were met "fairly well", and 15 percent thought existing facilities met their needs "poorly". In general, respondents feel the extent to which existing educational facilities meet the occupational and training needs of their company or firm left something to be desired.

Training Programs Offered

Respondents were asked whether their company or firm had a formally organized training program. Of the firms employing under 100 employees 20 percent had such a program compared to 35 percent of those employing over 100 employees. Respondents were asked to indicate what type of program they operated on a formal basis. Of the smaller firms, 10 percent had apprenticeship programs, 6 percent provided supervision programs, 5 percent had executive development programs, and 3 percent had technician programs. About one percent had a sales or plant management program. Two percent had on-the-job training, information classes, or some unspecified type of program.

Of the firms with over 100 employees, 19 percent had apprenticeship programs, 9 percent provided supervision programs, 8 percent had executive development programs, 3 percent had either a technician program or a plant management program. Eleven percent had some other type of program.

Employment Practice Concerning High School Dropouts and Young Graduates

Respondents were asked to indicate the frequency of job entry employment practice concerning several skill classifications of jobs of young persons who had dropped out of high school before finishing and of young persons who had just graduated from high school. It was felt these data would reveal the extent to which youth with less than a post-high school level of education could expect, with proper training, to enter gainful employment in the area. In addition, such information is useful in indicating the needs for higher levels of education and training than high school for certain job skill levels as prerequisites for job entry.

Data presented in Table 68 reveal reported employer practice in employing high school dropouts. Percents were based on the total number of firms in both the large and small categories of size rather than upon the total number of just those responding. It can be seen, for example, that only two percent of the large firms employ high school dropouts for highly skilled jobs as common practice. This was true of one percent of the small size firms. Likewise, it can be seen that 25 and 19 percents respectively of large and small firms employ dropouts as unskilled laborers as a common practice. Taking all firms responding, 29 percent employ dropouts as a common practice for unskilled laborers, 24 percent do so infrequently and 26 percent almost never do so. Only one or 2 percent of all respondents employ dropouts infrequently or as a common practice for sales jobs, business jobs, or in highly skilled jobs. The remaining parts of the table are to be interpreted likewise.

TABLE 68

PERCENT OF FIRMS EMPLOYING HIGH SCHOOL DROPOUTS BY SIZE OF FIRM AND FREQUENCY OF PRACTICE REGARDING ENTRY EMPLOYMENT

	Frequency of Employment						Total - All Firms		
	Common Practice		Infrequently		Almost Never		Common Practice	Infrequently	Almost Never
Entry Job Category	Large	Small	Large	Small	Large	Small			
Highly Skilled Jobs	2	1	3	.3	28	26	1	1	27
Business Office Jobs	3	.3	3	2	32	26	1	2	28
Sales Jobs	1	2	10	3	22	28	2	1	26
Apprenticeship for Highly Skilled Trades and Crafts	1	2	6	5	26	29	2	5	21
Semi-Skilled Jobs (Assembly line and production workers, machine operators)	9	4	7	6	15	12	6	6	13
Service Jobs	10	7	14	10	15	13	8	12	14
Unskilled Labor	25	19	10	12	10	12	21	12	12

Ten percent of all large firms infrequently employ dropouts in sales jobs, and only 1 percent do so as a common practice, but 22 percent almost never employ such persons. Six percent of all firms employ dropouts as a common practice for assembly line jobs, machine operators or production workers, and 6 percent do so infrequently. Thirteen percent almost never employ them for those semi-skilled levels of jobs. About a fifth of all firms almost never employ dropouts to apprenticeship for highly skilled crafts and trades, 5 percent do so infrequently, but 2 percent do so as a common practice.

To be found in Table 69 are data on employment practices of young high school graduates. Similar practices prevail between small and large firms. Over a third of all firms make it common practice to employ young high school graduates in unskilled and service jobs, but 11 percent almost never do so; 15 percent do so infrequently. Whereas 17 percent of all respondents employ these youth in business office jobs as a common practice, 9 percent do so for sales jobs. A fourth of all firms almost never employ young high school graduates for highly skilled or technical jobs, but 6 percent do so as a common practice. An eighth of all firms employ as a common practice these youth for apprenticeships in the highly skilled trades and crafts, and 14 percent do so infrequently or "almost never".

TABLE 69

PERCENT OF FIRMS EMPLOYING HIGH SCHOOL GRADUATES BY SIZE OF FIRM AND FREQUENCY OF PRACTICE REGARDING ENTRY EMPLOYMENT

	Frequency of Employment						Total - All Firms		
	Common Practice		Infrequently		Almost Never		Common Practice	Infrequently	Almost Never
Entry Job Category	Large	Small	Large	Small	Large	Small			
Technician Jobs	4	3	5	5	13	10	3	5	11
Highly Skilled Jobs	4	3	7	2	14	14	3	4	14
Business Office Jobs	21	15	10	9	4	7	17	9	6
Sales Jobs	10	9	7	5	12	11	9	6	12
Apprenticeship for Highly Skilled Trades and Crafts	16	10	7	7	8	7	12	7	7
Semi-Skilled Jobs (Assembly line and production workers, machine operators)	16	11	6	3	6	4	13	4	5
Service Jobs	22	14	8	7	5	7	17	7	6
Unskilled Labor	20	18	6	8	6	4	19	8	5

Not all responding firms would have each of the types of job categories within their enterprise. Respondents, therefore, without certain categories of jobs would not have indicated practice for those not found in the firm on which they reported. While it is useful to reveal practice of employment among all firms as was done in Tables 68 and 69, it is most revealing to portray practice as it is found among only those firms having responded to each type of job category. These data are summarized in Table 70.

TABLE 70

EMPLOYMENT PRACTICE REGARDING YOUNG HIGH SCHOOL DROPOUTS AND GRADUATES

	Dropouts			Graduates		
Entry Job Category	Common Pract.	Infre-quently	Almost Never	Common Pract.	Infre-quently	Almost Never
Technicians Jobs				18	26	56
Highly Skilled Jobs	3	4	93	15	19	66
Bus. Office Jobs	3	6	91	53	28	19
Sales Jobs	5	15	80	35	22	43
Apprenticeship for highly skilled trades and crafts	6	18	76	46	27	27
Semi-skilled Jobs (Assembly line, production workers, machine operators)	22	26	52	58	19	23
Service Jobs	24	34	42	55	24	21
Unskilled Labor	48	26	26	60	25	15

From Table 70, one can observe that of firms employing persons for highly skilled jobs, 93 percent almost never employ a high school dropout, and 66 percent almost never employ young graduates. Three percent do employ dropouts as a common practice and 15 percent do likewise with high school graduates. Ninety percent almost never or infrequently employ dropouts for business office jobs compared to 47 percent who follow the same practice regarding graduates. Fifty-three percent employ graduates as a common practice for business office jobs compared to 3 percent who employ dropouts. Whereas 6 percent of firms employing apprentices for highly skilled trades employ dropouts as a common practice, 46 percent employ graduates for these jobs as a common practice. Over three-fourths of the firms almost never take a dropout into one of their apprenticeships compared to 27 percent who do not employ graduates either.

Higher percentages of firms with service, semi-skilled, and unskilled jobs employ both dropouts and graduates as a common practice than for other skill categories. While 78 percent almost never or infrequently employ dropouts for semi-skilled jobs, this was true for only 42 percent regarding graduates. In 60 percent of the firms with unskilled laborers it is a common practice to employ high school graduates for this type of work and this was the practice among 48 percent of such firms concerning dropouts. In service jobs, 24 percent employ dropouts as a common practice but 55 percent employ graduates for these jobs as a common practice. Data of these types should serve as a strong encouragement for high school youth to remain in school, and for many graduates to continue their schooling.

Observations reveal differences between opportunities for high school dropouts and graduates. Employers indicate they employ young high school graduates least for highly skilled and technician type jobs and most for unskilled, semi-skilled, and business office jobs. They employ dropouts least for highly skilled, business office, sales and apprenticeship type of jobs and most for unskilled, service and semi-skilled jobs such as assembly line, production workers, or machine operators.

Recalling employment practices of their firm over the last five years, employers indicated their evaluation of young persons who had applied for entry jobs in their organization. Seventeen percent indicated they had employed a number of young non-high school graduates and found them to perform satisfactorily in certain types of jobs. These include jobs as machine operators, office jobs, common labor, waitress-waiter, custodial jobs, auto mechanics, truck drivers, sales and stock clerks, cashiers, graphic arts, yard men, service jobs, nurses' aide, semi-skilled jobs and building trades. Eight percent of all firms reported employing young non-high school graduates and finding them to need considerable additional education and training before they could perform satisfactorily. Thirteen percent reported finding young non-high school graduates unsatisfactory due to lack of training, interest, ability, basic knowledge, desire to learn, and job responsibility. They were characterized as immature, discourteous, having poor work habits and attendance, undependable and unproductive.

Twenty-six percent of the firms indicated most young high school graduates who apply seem reasonably well prepared for entry employment and they have been employed as openings occurred. However, 20 percent indicated differently, for they report finding that young high school graduates need a considerable amount of additional education and training before they can perform satisfactorily. Six percent of all firms reported they had found it inadvisable to employ young high school graduates except for unskilled jobs. Twelve percent indicated that the nature of most entry jobs is such that young high school graduates are virtually unemployable because of lack of occupational training.

Responses of employers concerning jobs for which no formal (in school) education beyond high school is required are to be found in Appendixes C-1 and C-3.

Comments of Employers. Thirty-three of the responding large firms indicated that factors other than skilled training are in need of attention in training programs for occupational entry. Some believed that greater emphasis should be placed in guidance and counseling of the students from the early days of high school training until they have finished their educational experience. Some felt that, "Too much emphasis is being placed on theory of subject matter and not enough on the practical application." Some employers suggested more experience in the field is needed by the instructors.

Others felt not enough emphasis has been placed on desirable personal character traits such as job responsibility, desire to learn, and good work habits. They suggested that, "Some attention should be given to training the students in how to meet and work with the public." Employers also felt that too many students have not acquired the basic skills in reading, writing and arithmetic that is needed for additional training. Some firms with their own apprentice or on-the-job programs felt that it was sufficient to meet their needs. It was expressed by some firms that although college programs are good, evaluation should be done periodically to develop better programs and new programs.

High School Level Vocational Education Needs. Data appearing in Appendix C indicate the need for high school level programs in several fields. They are automotive mechanics, building trades (carpenter, painter, plumber, cement finishers, welders), machine operators, truck drivers, custodians, retail salespersons, stenographers, bookkeepers, clerk-typists, general office clerks and heavy equipment operators.

Willingness to Cooperate Further. Respondents were asked if they would be interested in participating in further study or discussion at a later time concerning plans for improving occupational education and training at high school and post-high school levels in the Quad-City area. Twenty-eight percent of the 375 firms responding indicated they would have a definite interest in doing so. Nineteen percent said "no" and 53 percent did not respond to the question. The percent responding negatively corresponds to other studies, but the percent expressing affirmative attitude is far less than is usually found in studies of this type. This fact may be cause for some real concern if a junior or community college attempts to develop a realistic program of occupational education.

Part IV - Summary and Conclusions

Data provided by employers warrant the following conclusions and statements of fact:

1. Of firms with employees in occupations that are primarily industrial, 90 percent of the small and 86 percent of the large Illinois firms and 61 percent of the small and 93 percent of the large Iowa firms indicated availability of qualified employees was scarce.

2. Increase in demand for employees in industrial type occupations was indicated by 46 and 66 percents, respectively, of Illinois small and large size firms and by 57 and 52 percents, respectively, of the Iowa small and large size firms.

3. Approximately 72 and 74 percents, respectively, of Illinois and Iowa firms employing drafting and design technicians expect an increase in demand and 88 and 87 percents, respectively, indicated availability of qualified persons was scarce.

4. While 86 and 87 percents, respectively, of employers in Illinois and Iowa employing foremen (first line supervisors) indicated qualified employees were scarce, 46 and 32 percents, respectively, expected the demand for such employees to increase.

5. Three-fourths of the Illinois firms responding and half of those in Iowa expected the demand for electronic and electrical technicians to increase, and all the Illinois respondents and 71 percent of those in Iowa indicated the availability of qualified employees was scarce.

6. Three-fourths of the Illinois firms employing industrial engineering technicians and half of such Iowa firms expect the demand to increase and 80 and 90 percents, respectively, indicate the availability of qualified employees is scarce.

7. Two-thirds of both the Illinois and Iowa firms expected an increase in demand for mechanical technicians and all firms indicated qualified employees were scarce.

8. Sixty-one percent of Illinois firms and two-thirds of those in Iowa employing time and motion study personnel expect an increase in demand and 93 percent of Illinois firms and all Iowa firms indicated qualified personnel were scarce.

9. All respondents employing chemical technicians indicated qualified employees were scarce and 38 and 66 percents, respectively, of Illinois and Iowa firms expected an increase in demand over the next five years.

10. Regarding occupations that are primarily business, 55 and 75 percents, respectively, of small and large Illinois firms and 68 and 63 percents, respectively, of small and large Iowa firms indicated a scarcity of qualified employees. Thirty-one and 40 percents of Illinois small and large firms expected a future increase in demand as did 47 and 31 percents of Iowa small and large firms.

11. Three-fourths of the Illinois firms and 78 percent of those in Iowa employing outside salesmen indicated locally qualified personnel were scarce and 58 and 60 percents, respectively, expected an increase in demand.

12. Half of all respondents employing secretaries indicated available qualified persons were scarce. A third of Illinois respondents and 44 percent of those in Iowa expected the demand to increase, while two-thirds of the former and 56 percent of the latter expected the demand to remain about the same.

13. Eighty-four and 88 percents, respectively, of Illinois and Iowa respondents employing business data processing employees indicated a scarcity of locally available qualified employees. Forty percent of the former and half of the latter group expected the demand to increase.

14. Over two-thirds of Illinois respondents and half those in Iowa employing accountants indicated locally available qualified personnel was scarce, but a third of the former group and 18 percent of the latter expect the demand to increase.

15. In the area of business management, 53 and 63 percents, respectively, of Illinois and Iowa respondents indicated a scarcity of qualified local employees, and 27 and 50 percents, respectively, expected an increase in demand.

16. Half the Illinois firms and all the Iowa firms employing persons to work in real estate, insurance or finance indicated a scarcity of qualified personnel, and 60 and 48 percents, respectively, expected the demand to increase.

17. Instructional areas in which the greatest incidence of need was indicated by employers for job upgrading education were in order of need, as follows in both Iowa and Illinois: (1) supervisory training, (2) blueprint reading, (3) business, and (4) mathematics. Fifth in order for Illinois was hydraulics, and for Iowa it was mechanics. Other areas were general education with emphasis upon communication skills and applied psychology, drafting, electricity and electronics, metallurgy, and air conditioning and refrigeration.

18. Specific types of supervisory training included foreman training and training for administrative personnel. Various options of blueprint instruction were indicated. In business, the greatest need in Illinois was expressed for (1) accounting-bookkeeping, (2) typewriting, (3) stenography, (4) salesmanship, and (5) operations and management, while in Iowa it was for (1) salesmanship, (2) accounting-bookkeeping, (3) typewriting, (4) operations and management, and (5) stenography.

19. Specific courses of highest order of need in several other instructional areas for both Illinois and Iowa were basic mathematics, communications (grammar, speech, spelling), automotive service repair, electric arc welding, elementary drafting, hydraulic equipment maintenance, electrical equipment maintenance and AC and DC fundamentals, and air conditioning and refrigeration equipment maintenance.

20. Nine and 15 percents, respectively, of Iowa and Illinois employers indicated existing educational facilities of the Quad-City area met the occupational and training needs of their company or firm "very well". Twenty-six and 47 percents, respectively, indicated "fairly well", and 15 and 18 percents, respectively, indicated such needs were met "poorly". Others did not respond. At least 41 and 65 percents, respectively, of respondents must feel improvements in this regard are needed.

21. Two-fifths of the Illinois firms and a fifth of the Iowa firms employing over 100 employees reported apprenticeship programs; 27 and 9 percents, respectively, reported supervision programs. Ten percent of Illinois firms reported a technician program and 7 percent a plant management program while in Iowa, 3 percent had one or the other. Eighteen and 11 percents, respectively, reported some other type of in-plant program.

22. Employer practice reveals that except for common laborer jobs and low level service jobs, they almost never employ high school dropouts.

23. Of Illinois firms, 45 percent indicated that most young high school graduates who have applied for jobs over the past five years seemed reasonably well-prepared, and 26 percent of Iowa firms indicated likewise. A fifth of the Iowa employers and 28 percent of those in Illinois indicated their experience indicated young high school graduates needed considerable additional education and training before they could perform satisfactorily.

24. Data supplied by employers on jobs for which no further education beyond high school was deemed essential or desirable, would seem to indicate need for high school vocational education programs for the building trades, automobile mechanics, machinists, and machine operators, truck drivers, custodians (janitors), retail salespersons, bookkeepers, clerk-typists, and general office clerks. In addition, need in Iowa would include stenographers and heavy equipment operators while in Illinois it would include core makers, cooks and chefs, data processing workers, route salesmen, millwrights, and assembly line workers.

25. Data reveal that high school dropouts have a little and very limited opportunity of finding a job and that the majority of high school graduates would do well to continue their education for a while after high school graduation.

26. Data from the legal, medical, and dental professions in Illinois indicated the need for legal and medical secretaries. Receptionists and office assistants, properly prepared, seem needed in dental as well as medical offices. Court reporters are in demand.

27. Sixty-one percent of the Illinois respondents and 28 percent of those in Iowa indicated they would have definite interest in participating with college or school officials in further study or discussion concerning plans for improving education and training programs at the high school and college levels in the Quad-City area.

CHAPTER VI

SUMMARY AND CONCLUSIONS

Data presented in the Eastern Iowa Community College occupational survey support the summary statements and conclusions which follow:

Community Characteristics.

1. A relatively high degree of population stability is indicated by the fact that 88 percent of all seniors had lived in the area at least six years, and 67 percent of parents responding had lived in the area over 10 years.

2. Scott County appears to be the focus of economic activity in terms of where the largest percent of parents are employed. Only 12 percent of the employed men respondents and 1 percent of the women worked in Illinois.

Some Characteristics of Respondents.

A. Parents of Fifth Grade Children

1. Of the 2,648 parents of fifth grade children responding, a third of the fathers and a fourth of the mothers were not high school graduates. Three of every ten fathers and two of every ten mothers had had college level educational experience. Seventeen percent of the fathers and 8 percent of the mothers were college graduates.

2. Since a third of the fathers and a fourth of the mothers were not high school graduates, it would seem opportunities for adults to complete high school and to pursue programs beyond that level would be of interest in the area.

B. Seniors

3. Among the 2,834 seniors responding to the study, the incidence of broken homes was typical for the nation as a whole. All youth lived in easy commuting distance to one of the campuses.

4. In general, youth were enrolled in high school curricula compatible with future educational aspirations. Of youth not planning on college, the largest percent of boys were in either a shop or general curriculum and the largest percent of girls were in a commercial or general curriculum. Nearly a third of all youth without plans for college were in a general curriculum. Three fourths of all seniors definitely planning on college were in a college preparatory curriculum.

5. Eighty-three and 78 percents respectively of senior boys and girls in the top third by class rank definitely plan on college as do 39 and 34 percents respectively in the middle third and 14 and 13 percents respectively in the bottom third. While relatively small percents of the most capable seniors do not plan on college, at least one of every ten persons who may include college in future plans rank in the lowest third of their class.

6. Of seniors who do not plan on college, 7 percent were in the top third class rank, 53 percent in the middle third, and 40 percent in the low third. Thirty-nine percent of youth in the top third "probably" will include college in plans.

7. There seems to be a good and realistic alignment of educational intent and both academic ability and high school curriculum followed. However, the Eastern Iowa Community College programs should probably be geared to attract and to serve larger proportions of students ranking in the middle third of their high school classes.

8. Most, 60 percent of boys and 42 percent of the girls, of the seniors not intending to attend college would be interested in either on-the-job training or an apprenticeship to learn a craft.

9. Youth plans for college were found to be positively related to family economic status, stability of home life, level of education attained by parents, and parents' attitudes about youth continuing in school.

10. A comparison of occupational aspirations and educational plans reveal that they are quite compatible for those seniors seeking to enter a profession or nursing.

C. Graduates

11. Of all respondents, 8 percent had received no type of education beyond high school, 24 percent had had on-the-job training, 13 percent had attended a trade or technical school, 4 percent had taken an adult education course, and 63 percent had attended a college or university. Two percent of the boys and 8 percent of the girls had attended a business college, 8 and 4 percents, respectively, had taken a correspondence course, and 24 and 1 percents, respectively, had attended a military service school. About 39 percent of all respondents were in school at the time of the study.

12. Fifty-five percent of the 2,899 graduates responding had completed a high school college preparatory curriculum, 21 percent a general curriculum, 14 percent a business curriculum, and 6 percent a technical or shop curriculum. About 4 percent had completed another type curriculum such as agriculture and homemaking.

13. Over three-fourths of all respondents took a high school program other than one designed to prepare for job entry. About 69 percent of graduates who did not take any vocational education indicated the reason was that they had other plans for their future.

14. Of respondents having no further education beyond high school, 22 and 62 percents, respectively, of men and women had taken vocational education to prepare for a job.

15. About four of every ten responding graduates were married, and 64 percent were gainfully employed. Most unemployed persons were in school, and the majority of them were women. Compared to some other areas it seems a tendency for youth to delay marriage and to attend school in larger proportions. Of all graduates responding to the question, the largest percent were earning over $400 per month.

16. Eight percent of all graduates responding had attended an Eastern Iowa Community College campus, 34 percent had attended one of six Iowa colleges or universities listed, and 33 percent had attended elsewhere.

D. Employers

17. Of the 736 business, industrial, and governmental enterprises responding a fifth of the Iowa firms and two-fifths of the Illinois firms employing over 100 employees reported apprenticeship programs; 9 and 27 percents, respectively, reported supervision programs. Ten percent of Illinois firms reported a technician program and 7 percent a plant management program, while in Iowa, 3 percent had one or the other. Eleven and 18 percents, respectively, reported some other type of in-plant program.

18. Employer practice reveals that except for common laborer jobs and low level service jobs, they almost never employ high school drop-outs.

19. Of Iowa firms, 26 percent indicated that most young high school graduates who have applied for jobs over the past five years seemed reasonably well-prepared, and 45 percent of Illinois firms indicated likewise. A fifth of the Iowa employers and 28 percent of those in Illinois indicated their experience was that young high school graduates needed considerable additional education and training before they could perform satisfactorily.

Interest in College Attendance.

1. Two-thirds of all seniors, 68 and 64 percents, respectively, of boys and girls, will definitely or probably include college in future plans; 49 percent plan to do so definitely. Eleven percent don't know if future plans include college, and 22 percent will definitely or probably not include college attendance in future plans.

2. Half the seniors in Scott County indicated a definite plan to attend college compared to 31 percent of the boys and 40 percent of the girls in Louisa County, 38 and 35 percents, respectively, in Cedar County, 49 and 47 percents, respectively, in Clinton County, and 46 and 52 percents, respectively, in Muscatine County. The highest percents of youth who will probably or definitely not include college in their plans resided in Louisa and Cedar counties.

3. Although 68 and 64 percents, respectively, of boys and girls indicated plans would definitely or probably include college, 55 and 67 percents, respectively, expect to enter school the next year after graduation from high school. At least one in every ten boys apparently plan to delay attendance to a later date. In general, immediate post-high school plans verified the expressed intentions for including college in future plans.

4. Fifty-two percent of all parents indicated they planned for their child to complete a four-year college degree; 36 percent more planned for their child to complete a two-year community college or a trade or vocational school program. Parents plan for higher levels of education for boys than for girls.

5. Slightly over two-thirds, 68 percent, of parents indicated their child would definitely or probably attend some college at a later date, and 26 percent were uncertain. Certainty that a child would attend college was found to vary among the several counties in which fathers worked.

6. Of parents working in a profession, 64 percent definitely planned on their child attending college compared to 25 percent not in a profession.

7. Forty-one percent of parents indicated interest in having their child prepare for entry into a skilled trade, 41 percent expressed interest in having the child prepare for entry into a semi-professional, technical, or middle level business occupation, and 43 percent expressed an interest in having the child prepare for a profession.

8. Higher percents of parents who were less certain their child would attend college and who were not in a profession expressed interest in having their child prepare for entry into a skilled trade or a semi-professional, technical, or middle level business occupation than parents who were professional and had higher feelings of certainty that their child would attend college.

9. Higher percents of men and women graduates who were employed expressed interest in further education than those who were unemployed.

10. Seventy and 55 percents of all men and women graduates, respectively, or 63 percent of all, indicated present interest in opportunities for further education. This was true for 56 and 23 percents of men and women graduates, respectively, who had no further education beyond high school and 70 and 66 percents, respectively, of those who had attended a college or university.

11. Most men are interested in further education for job improvement purposes, while most women are interested for self improvement purposes. Higher percents of men than women expressed present interest in further education.

12. Financial reasons were indicated as the reason of most importance why graduates had not continued in school after high school graduation. Over half of those not continuing indicated they would have done so if more financial assistance had been available.

13. Of men with present interests in further education, 22 percent indicated they would have continued their education after high school if more money had been available.

14. Fifty-two percent of all parents had no plan at present for financing the college attendance of their child. Thirty-one percent had a definite educational savings plan.

15. A third of the parents had no interest in further education for themselves but 27 percent of fathers were interested in courses for job improvement and the same percent of mothers were interested in courses for self improvement purposes. Interests in further education for themselves varied according to geographical area in which fathers worked.

16. About six of every ten seniors not planning on college attendance expressed interest in some type of advanced occupationally-related education.

17. Relatively large percents of youth with interest in entering some occupations for which traditional type college programs would not be appropriate have indicated future plans to include college in their plans. Either they should reorient their educational planning toward a type of technical education appropriate to the interest or a local college should develop appropriate types of college level programs to accommodate such interests.

Interest in Eastern Iowa Community College.

1. Sixteen percent of all seniors planned to attend an Eastern Iowa Community College campus. The largest percent who plan to attend this college ranked in the middle third of their high school class.

2. About 37 percent of parents who felt their child would definitely attend college also indicated the child would attend Eastern Iowa Community College as did 46 percent who thought the child would "probably" attend college. So far as parents are concerned, approximately four of every ten children who would probably or definitely attend college would attend the community college and about four out of ten were uncertain.

3. Thirty-nine percent of all parents expressed interest that their child would attend an Eastern Iowa Community College campus. Of professional parents, 22 percent intended that their child would attend the community college compared to 41 percent of fathers in non-professional work.

4. Of interest to the Eastern Iowa Community College should be the fact that a lower percent of fathers working in Scott County than any other area indicated their child would attend the college and half were uncertain. Perhaps this is a wait-and-see attitude about the college development.

5. Seniors who plan on college but don't plan to attend Eastern Iowa Community College cite as the reason of most importance that the college "does not offer what I want". Nine percent, almost one of every ten, indicated their reason was that instruction was not as good as elsewhere and 5 percent felt it was too much like high school.

6. Poor image and lack of offerings to accommodate interests account for reasons that about 6 of every 10 youth give for planning to attend college elsewhere.

Reasons for Non-College Attendance.

1. Financial reasons and inability to make good enough grades were reasons of most importance given by over half of all seniors whose plans did not include college attendance anywhere as to why they did not plan to continue their education. Fifteen percent indicated they would change plans if more money were available; another 28 percent thought "maybe" they would change plans. About 48 percent would need enough money to pay half their expenses and 10 percent would need less than half.

Attitudes Toward Education.

1. About 88 percent of all parents felt that higher education opportunity should be for all persons who have ability to profit from it regardless of financial means. Only 1 percent would limit such opportunity to those with superior ability and 7 percent would limit opportunity to those with ability who had money. This finding evinces a wholesome attitude of people in the area generally about who should be educated.

2. About four in every ten graduates felt educational opportunity in their home area was adequate, about five of every ten felt it was fair but not all youth who desire more training than high school find what they want and one in ten thought opportunity was "poor".

3. Parental aspiration for the education of youth as perceived by seniors was relatively high. A slight bias seemed to favor the education of boys more than girls.

4. Perceived parental attitude about school attendance was found related to whether graduates had, in fact, continued their education.

Evaluation of Educational and Occupational Guidance.

1. Although 43 percent of seniors felt their high school had given them all the help they needed or considerable help in making educational plans or occupational choices, 56 percent felt they had received some but not very much help or little or no help in this regard.

2. Twenty-eight percent of seniors felt the high school had not prepared them very well or had been only fair in terms of what they expect to do after graduation. Sixty-nine percent felt their high school had been very good in this respect or had given them just what they needed.

3. Evaluations of the high school by seniors were associated with rank in class. Youth with higher grades evaluated the high school higher than youth with lower grades. Possibly youth with lower grades did not receive as much help as did others.

4. A fourth of the graduates entering employment, and 42 percent of those attending college after high school indicated the high school had prepared them very well in some ways but could have been better in others. Higher percents of men in both groups than women felt their preparation had been inadequate. About the same proportion of both men and women (an eighth) attending college felt their preparation had been excellent. Whereas, of men and women entering a job 9 and 18 percents respectively felt their high school had been excellent.

5. Sixty-nine percent of all graduates had decided upon the work they would like to be doing ten years hence, and six of every ten indicated they had received only some or little or no help in this regard from their high school.

Needs for Post-High School Programs.

1. Fields of advanced study of interest to seniors reveal the need for (1) pre-professional programs in engineering, social work, teaching, and medicine; (2) liberal arts and sciences; (3) business education; (4) laboratory technology; (5) drafting; (6) mechanical technology, electronics technology; (7) agriculture; (8) cosmetology; (9) art; and (10) drama.

2. Occupational aspirations of seniors indicate needs for community college programs which would include (1) pre-professional, (2) nursing, (3) business with emphasis upon clerical-secretarial and business management, (4) electricity-electronics technology, (5) drafting, (6) welding, (7) mechanics, (8) agriculture, (9) art, (10) laboratory technology, and (11) cosmetology.

3. Educational programs of interest to parents for their fifth grade child were (1) business education with emphasis upon secretarial science, (2) nursing, (3) agriculture, (4) mechanical, (5) electronics technology, (6) medical technology, (7) electronic data processing, (8) laboratory technology, (9) automotive technology, (10) architectural drafting, and (11) dental technology.

4. Educational programs of interest to mothers of fifth grade children for themselves were (1) secretarial, (2) homemaking, (3) nursing, (4) accounting, (5) music, (6) library technology, (7) electronic data processing, and (8) medical technology. Of interest to fathers were (1) agriculture, (2) mechanical technology, (3) salesmanship, (4) automotive technology, (5) accounting, (6) electronics technology, (7) electronics data processing, and (8) radio-TV technology. Also of interest to mothers were retailing, salesmanship, X-ray technology, and laboratory technology. Additional interests of fathers were refrigeration and air conditioning, architectural drafting, drafting, retailing, chemical technology, and surveying.

5. This study is most unusual in that there seemed to be no definite concentration of interests among graduates expressing desire for further education, and in the small numbers of such persons who could or would state an interest. The relatively large percent of respondents who had continued their education may indicate a bias in results in favor of those who had already satisfied their educational needs.

6. Comparisons of present jobs held by graduates with types of jobs to which they would be interested revealed little. Considering this response a typical sample, one could conclude that programs in business administration and management would be of interest. Nursing and commercial art are areas of exploration.

7. Instructional areas in which the greatest incidence of need was indicated by employers for job upgrading education were, in order of need, as follows in both Iowa and Illinois: (1) supervisory training, (2) blueprint reading, (3) business, and (4) mathematics. Fifth in order for Illinois was hydraulics, and for Iowa it was mechanics. Other areas were general education with emphasis upon communication skills and applied psychology, drafting, electricity and electronics, metallurgy, and air conditioning and refrigeration.

8. Areas in which Iowa employers indicated the greatest need for job upgrading training were (1) supervisory training, (2) blueprint reading, (3) business, (4) mathematics, and (5) mechanics. In business, the greatest need in Iowa was expressed for (1) salesmanship, (2) accounting-bookkeeping, (3) typewriting, (4) operations and management, and (5) stenography. In Illinois, it was for (1) accounting-bookkeeping, (2) typewriting, (3) stenography, (4) salesmanship, and (5) operations and management.

9. Specific courses of highest order of need in several other instructional areas for job upgrading in both Illinois and Iowa were basic mathematics, communications (grammar, speech, spelling), automotive service repair, electronic arc welding, elementary drafting, hydraulic equipment maintenance, electrical equipment maintenance and AC and DC fundamentals, and air conditioning and refrigeration equipment maintenance.

10. Regarding occupations that are primarily business, 68 and 63 percents, respectively, of small and large Iowa firms indicated a scarcity of qualified employees, as did 55 and 75 percents, respectively, of small and large Illinois firms. Forty-seven and 31 percents of Iowa small and large firms expected a future increase in demand as did 31 and 40 percents, respectively, of Illinois small and large firms.

11. Of firms with employees in occupations that are primarily industrial, 61 percent of the small and 93 percent of the large Iowa firms indicated availability of qualified employees was scarce as did 90 percent of the small and 86 percent of the large Illinois firms. Increase in demand for employees in industrial type occupations was indicated by 57 and 52 percents, respectively, of the Iowa small and large size firms and by 46 and 66 percents, respectively, of Illinois small and large size firms.

12. Data from employers indicated the need for pre-service educational programs for the preparation of persons to enter employment in the following fields. (1) drafting and design technology, (2) supervision, (3) electronics and electrical technology, (4) industrial engineering technology, (5) mechanical technology, (6) time and motion study technicians, (7) chemical technology, (8) data processing, (9) salesmanship, (10) secretarial science, (11) accounting, (12) business management, and (13) real estate, insurance and finance. The following findings support this conclusion:

    a. Approximately 74 and 72 percents, respectively, of Iowa and Illinois firms employing drafting and design technicians expect an increase in demand and 87 and 88 percents, respectively, indicated availability of qualified persons was scarce.

    b. While 87 and 86 percents, respectively, of Iowa and Illinois firms employing foremen (first line supervisors) indicated qualified employees were scarce, 32 and 46 percents, respectively, expected the demand for such employees to increase.

c. Half the Iowa firms responding and three-fourths of those in Illinois expected the demand for electronic and electrical technicians to increase, and 71 percent of Iowa respondents and all of the Illinois respondents indicated the availability of qualified employees was scarce.

d. Half the Iowa firms employing industrial engineering technicians and 75 percent of such Illinois firms expect the demand to increase and 90 and 80 percents, respectively, indicate the availability of qualified employees is scarce.

e. Two-thirds of both the Iowa and Illinois firms expected an increase in demand for mechanical technicians and all firms indicated qualified employees were scarce.

f. Two-thirds of the Iowa firms and 61 percent of those in Illinois employing time and motion study personnel expect an increase in demand, and all Iowa firms and 93 percent of Illinois firms indicated qualified personnel were scarce.

g. All respondents employing chemical technicians indicated qualified employees were scarce and 66 and 38 percents, respectively, of Iowa and Illinois firms expected an increase in demand over the next five years.

h. Seventy-eight percent of the Iowa firms and 75 percent of those in Illinois employing outside salesmen indicated locally-qualified personnel were scarce and 60 and 58 percents, respectively, expected an increase in demand.

i. Half of all respondents employing secretaries indicated available qualified persons were scarce. Forty-four percent of Iowa respondents and 33 percent of those in Illinois expected the demand to increase, while 56 percent of the former and 66 percent of the latter expected the demand to remain about the same.

j. Eighty-eight and 84 percents, respectively, of Iowa and Illinois respondents employing business data processing employees indicated a scarcity of locally available qualified employees. Half of the former and 40 percent of the latter group expected the demand to increase.

k. Half the Iowa respondents and over 66 percent in Illinois employing accountants indicated locally available qualified personnel was scarce, but 18 percent of the former group and a third of the latter expected the demand to increase.

l. In the area of business management, 63 and 53 percents, respectively, of Iowa and Illinois respondents indicated a scarcity of qualified local employees, and 50 and 27 percents, respectively expected an increase in demand.

m. All the Iowa firms and half those in Illinois employing persons to work in real estate, insurance or finance indicated a scarcity of qualified personnel, and 48 and 60 percents, respectively, expected the demand to increase.

Conclusions. The findings of this study seem to indicate the following:

1. Both the scope of offerings and image of Eastern Iowa Community College should be improved upon. The college is of interest to a relatively low percent of youth and their parents in general, academically able youth, and parents in the higher occupational levels. Lack of appropriate programs is a major factor.

2. Opinions from a large proportion of youth indicated they had received less help than all they needed from high school in educational and occupational guidance and in preparation for what they planned to do after graduation.

3. Lack of money seems to be a relatively minor factor in reasons why youth do not attend college and particularly Eastern Iowa Community College.

4. While parents evinced wholesome attitudes about who should be educated and held relatively high levels of educational aspiration for their children, a relatively low proportion of business and industrial firms indicated a willingness to cooperate with college officials in developing occupationally oriented curricula. Lack of understanding that a public junior or community college is different than a typical four-year college stereotype and lack of previous involvement in curriculum development and evaluation activities may be partially responsible for general lack of willingness to cooperate.

5. Educational programs at Eastern Iowa Community College should emphasize the needs of both men and women, include special programs for adults among which would be opportunity to earn a high school diploma, and develop programs designed to prepare for job entry, job upgrading, transfer, and self-improvement.

6. Job upgrading training is needed in (1) supervisory training, (2) blueprint reading, (3) business emphasizing salesmanship, accounting-bookkeeping, typewriting, operations and management, and stenography and (4) mechanics. Specific courses in mathematics, communications (grammar, speech, spelling), automotive service repair, electronic arc welding, elementary drafting, hydraulic equipment maintenance, electrical equipment maintenance, AC-DC fundamentals, and air conditioning and refrigeration equipment maintenance would serve local interests.

7. Pre-employment programs are needed in (1) business with emphasis upon clerical, secretarial, sales, accounting, and management fields, (2) nursing, (3) laboratory technology, (4) medical technology, (5) mechanical technology, (6) electronics technology, (7) drafting and design, (8) agriculture, (9) electrical technology, (10) data processing, (11) radio-TV repair, (12) welding, (13) auto mechanics, (14) commercial art, (15) library technology, (16) homemaking, (17) cosmetology, (18) dental technology, (19) chemical technology, and (20) industrial engineering technology (including time and motion study technicians). Needs exist for preprofessional programs in engineering, social work, teaching, and medicine. Liberal arts and sciences are of interest to and appropriate for the occupational aspirations of a relatively large proportion of youth and adults.

8. In this area characterized by relatively high population stability, educational plans of youth are compatible with types of jobs they desire to enter in the professions or nursing. There is a good alignment of plans for future education and both academic ability and high school curriculum. Youth not planning on college were enrolled in shop, business, or a general curriculum. A third of the youth not planning on college were in a general curriculum. The college should review its programs, articulation procedures, and guidance services to determine how it might best serve youth in the middle and lower thirds of their classes, those not desiring to enter the professions or nursing, and those graduating from high school in a general curriculum which does not prepare for occupational entry or necessarily for college work.

APPENDIX A

Alleman High School
American Air Filter Co., Inc.
  (Herman Nelson Division)
Ametek Incorporated
Augustana College
Baer Electric Company, Inc.
Baker's Dairy
Bear Manufacturing Company
Belanger Farm Equipment Company
Beling Engineering Consultants
Ben Franklin Stores
  (East Moline, Geneseo, Silvis)
Bert M. Lafferty Company
Bickel Ford Incorporated
Birkeland Auto Sales
Bituminous Casualty Corporation
Blackhawk Federal Savings & Loan
Bob Maloney Buick, Inc.
Chicago, Burlington & Quincy RR Co.
Carson Pirie Scott & Company
Cassie's Beauty Salons
Cassini Tile & Marble Company
Child Guidance and Mental Health
Chippewa Motors Freight, Inc.
Coin Baking Company, Inc.
Columbian Feed Company
Container Corporation of America
Corey Electric Company
Crawford Heating Company
Credit Bureau of the Quad-Cities
Coulter Equipment Company
Davenport Packing Company
Deere and Company
DeSaulniers & Company
Dimock-Gould and Company
Dohrn Transfer Company
Downing's All-Star Dairy
Eagle Food Centers
East Moline City Employees
East Moline School Employees
East Moline State Hospital
Ericson Construction Company
Bob Eriksen Chevrolet, Inc.
Fairbanks Morse Weighing Systems
Federal Aviation Agency
Financial Security Life
  Insurance Company
First National Bank of Moline
First National Bank of Rock Island
Foremost Packing Company
Fort Armstrong Hotel
Foster Excavating Company
Francis I. DuPont & Company
Fresh Pak Candy Company
General Pattern Corporation
General Service Administration
George Evans Corporation
Gould National Batteries, Inc.
  (American Container Division)
Greenleaf Construction Company
Hacker Oldsmobile-Cadillac, Inc.
Hackner's Incorporated
Hammond-Henry Hospital
Harrington Signal Company
Henry Service Company
Hiland Auto Sales
Howard Johnson's Motor Lodge
Illinois Bell Telephone Company
Illinois Power Company
Illinois State Employment Service
Internal Revenue Service
International Business Machines
International Harvester Co.
  East Moline Works
  Farmall Works
International Transport, Inc.
Iowa-Illinois Gas & Electric Co.
J. C. Penney Company
J. I. Case Company
  Rock Island Works
Jacobs Cleaners
John Deere Harvester Works
John Deere Industrial Equipment
John Deere Malleable Works
John Deere Parts Depot
John Deere Planter Works
John Deere Plow Works
John Deere Spreader Works
Johnson Refrigeration, Inc.
Langman and Son
Larsen and Company
LeClaire Hotel
Lundahl Motors, Inc.
Lutheran Hospital
Mack Engineering Company
McKay Plumbing Company
McLaughlin Body Company
Mercer County Hospital
Mercer Service Company
Metropolitan Life Insurance Co.
Mid-Continent Terminal & Storage
Midway Oil Company
Miller Container Corporation
Mills Chevrolet

APPENDIX A (continued)

Modern Woodmen of America
Moline Auto Sales
Moline City Employees
Moline Consumers Company
Moline Daily Dispatch
Moline Engine Service
Moline Forge, Inc.
Moline National Bank
Moline Public Hospital
Moline Television Corporation
Moline Tool Company
Moline YMCA
Moline YWCA
Montgomery Elevator Company
Montgomery Ward and Company
Mosenfelder's, Inc.
National Licorice Company
National Life and Accident Insurance Company
Nitrin, Incorporated
Normoyle and Berg Company
Norwalk Truck Lines, Inc.
Parr Instrument Company
Peterson's Nursery & Garden Center
Prudential Insurance Company
Quad-City Construction Company
Quad-City Die Casting Company
Quint-Cities Petroleum Company
Regalia Manufacturing Company
Reynolds Engineering Company
Reynolds Motor Company
Rishel and Son
Robbins Electric Company
Robert Rote Company
Rock Island Argus
Rock Island Arsenal
Rock Island Bank & Trust Company
Rock Island City Employees
Rock Island County Employees
Rock Island Public Schools
Rock Island Service Company
Rock Island Steel Division, Macomber, Incorporated
Roy E. Roth Company
S. S. Kresge Company
Sanitary Farms Dairy
Service Transportation Lines, Inc.
Servus Rubber Company
Sexton Ford Sales
Sherrard Power System
Short Hills Country Club
Sieben Hybrids
Silvis City Employees
Silvis Lumber Company
Social Security Administration
Southeast National Bank
St. Anthony's Hospital
State Bank of East Moline
State Bank of Orion
Strombeck Manufacturing Company
Sun Chemical Corporation
Super X Drugs
Tanner Manufacturing Company
The Fashion Shops
The Isabel Shop
The Leech Company
The Plantation
The Tower
Three M Restaurant
Tri-City Food Stores
Tri-City Heat Treat Co.
United Air Lines
United States Army Engineer District
United States Post Office
United Township High School
Uptown National Bank
Valley Construction Company
W.Q.U.A. Radio
Western Structural Company
White-Rodgers Nu-Way Burners Div. of Emerson Electric
Whitey's Ice Cream Company
Williams-White and Company

APPENDIX A-1

Acme Fuel and Material Co.
Addressograph Multigraph Corp.
Advance Homes, Incorporated
Air Control, Incorporated
Allen Printing Company
Al's Camera Shop
Alter Company
Aluminum Company of America
American Legion
American Oil Company
American Provision Company
American Telephone & Telegraph Co.
C. E. Armstrong and Sons
Armstrong Plastering Company
Helen Bamford Studio
Batterson-Wessels Company
Bawden Brothers, Incorporated
Bee Line Company
The Bendix Corporation Instruments & Life Support Div.
Bennett Community School District
Bettendorf Bank & Trust Company
Bettendorf Dairy Queen Store
Bettendorf Press, Incorporated
Bickelhaupt Motor Company
Big Dollar Stamp Store
Bishop's Buffet
Blackhawk Foundry & Machine Co.
Blackhawk Hotels Company
Blevins & Hopper, Inc.
W. G. Block Company, Clinton
W. G. Block Company, Davenport
Bob & Chet's Jack & Jill Store
Bob's Mobile Service
Bowe Machine Company
C. O. Bowers Painting Contractor
Bozarth Service
Wm. Bradford Company, Inc.
Brink's Incorporated
Brown Dental Laboratory
Bruce-Terminix Company, Inc.
W. Atlee Burpee Company
C & J Service Company
Camanche Bowl Tap
Camera Corner
Carstensen Freight Lines, Inc.
Cashway Lumber Company
J. I. Case Company
Caterpillar Tractor Company
Central Steel Tube Company
Central Trust and Savings Bank
Chelf's Heating & Air Conditioning
Chicago, Rock Island, and Pacific RR
Citizen's Federal Savings & Loan Association of Davenport
City Center Motel, Inc.
City Engineer's Office
Clayton House Motel
Clinton Auto Parts Company
Clinton Bridge Commission
Clinton Community Schools
Clinton Electric Motors, Inc.
Clinton Garment Company
Clinton Herald Company
Clinton National Bank
Clinton Nursing Home
Clinton Pallet Company
Clinton Quality Homes, Inc.
Clinton Recreation Lanes, Inc.
The Collis Company
Colonial Manor Nursing Homes, Inc.
Columbus Community School District
Community School District of Wilton
Continental Trailways Bus Station
Crane Supply Company
Credit Bureau of Clinton, Inc.
Crescent Electric Supply Company
Cribbs, Incorporated
Curtis Companies, Inc.
Dahl Motors Davenport, Inc.
Davenport Bank & Trust Company
The Davenport Clinic
Davenport Community School District
Davenport Fish Company
Davenport Newspapers, Inc.
Davenport Nursing Home
Davenport Osteopathic Hospital
Davenport Spring Company
Davenport Water Company
Deluhery Electric, Inc.
Delwood Schools
Determann Blacktop, Inc.
DeWitt Bowling Lanes, Inc.
Dixon Cooperative Elevator Co.
E. I. duPont De Nemours & Co., Inc.
Eagles - Fraternal Order #815
Eclipse Lumber Company
Economy Roofing and Insulating Co.
Eldridge Cooperative Company
Electric Service of Clinton, Inc.
Elmwood Dairy, Inc.
El Rancho Motel

APPENDIX A-1 (continued)

Engineers Supplies, Inc.
Evans Card and Gift Shop
Leonard H. Ewoldt Company
Excel Mortgage Insurance Corp.
Federal Bake Shop
Fidlar & Chambers Company
Figg Aluminum, Incorporated
First National Bank
First National Bank of Davenport
First National Bank of Muscatine
First Trust and Savings Bank
First Trust and Savings Bank
Ford Motor Company
Mel Foster Company, Inc.
D. C. Franche & Company
Frank Foundries Corporation
French & Hecht Division, Kelsey-Hayes Company
Dean Fry Construction Company
Gabrilson Heating and Air Conditioning Company
Geifman Food Stores
General Life of America Insurance Company
Gene's Standard Service
Gerow Corporation
Globe Machinery and Supply Company
Gierke-Robinson Company
Grain Processing Corporation and Kent Feeds, Incorporated
Graybar Electric Company, Inc.
Greenwood Cemetery Commission
The Griddle
Grigg Nursing Home
Arthur P. Griggs Piano Company
Walter Grossklaus, Mason Contractor
H. & W. Motor Express Company
Hahn Brothers Company
Hankins Plumbing Shop
Daniel Haring Company, Incorporated
Harold's Jack and Jill
Hawkeye Chemical Company
Hawkeye Lumber Company
Henry's Drive-In
Heritage House Floor & Wall Shop
Benjamin Hershey Memorial Hospital Home
Hill's Fair-All Paint Store
Hockenberg
Hoersch and Werner
The Home-O-Nize Company
Honeywell, Incorporated
Hooker Chemical Corporation
R. V. Hopkins, Incorporated
Hotel Muscatine
The House of Vision, Inc.
Howard Steel Company
Hybill, Incorporated
Hynes and Howes
Internal Revenue Service
Interstate News, Incorporated
Interstate Power Company
Iowa Electric Light and Power Co.
Iowa State Savings Bank
Iowa "80" Restaurant
Harry Jacobs Hardware - Appliances
M. N. Jacobs Dental Supply Company
Jane Lamb Memorial Hospital
Johnson Oil Sales, Incorporated
Johnny's Grill
Jones Roofing
O. Jorgensen & Sons Construction Co.
Jo-Ray Trucking, Incorporated
Joyce Lumber Company
The Kartridg Pak Company
Kerana's Riverview Supper Club
Kohrs Cold Storage Corporation
Kopp's Market
Krambeck Feed & Supply Company
Kranz Flower Shop and Greenhouse
S. S. Kresge Company
Krieger Motor Company
KSTT, Incorporated
L & M Royal Blue Store
Warren L. Langwith, Incorporated
Forrest Larmer
General Leaseway Company
LeClaire Manufacturing Company
Long Manufacturing Company
Lord Baltimore Press
Lost Nation Community School Dist.
Louisa-Muscatine Community Schools
Lubbers & Bell Manufacturing Co.
Clyde Lucas Quality Plumbing, Inc.
Lutheran Homes
Lyons Drug Company, Inc.
Magnus Model Laundry
Mahler Construction Company, Inc.
Marbury Construction, Inc.
Margaret's Beauty Salon
W.J. Marolf & Sons, Ltd.
Martin Morris Company
The Mason Company, Inc.
Massachusetts Mutual Life Insurance Co.

APPENDIX A-1 (continued)

Massey's Business Equipment Center, Incorporated
Mast Development Company
Matthiesen Sausage
Medical Associates
Miller Auto Service
Mick's Service, Inc.
The Mississippi Engineering Company, Inc.
Mississippi Valley Fair
The Mississippi Valley Restaurant Association
Model Dairy Farms, Inc.
Monroe International
Monsanto Company
Montgomery Ward & Company Davenport and Muscatine
Moody Heating Company
Motor Club of Iowa
Mueller's Model Laundry and Cleaners, Incorporated
Chas. L. Mull & Sons, Inc.
Muscatine A.S.C.S. County Office
Muscatine Bridge Commission
Muscatine Broadcasting Company
Muscatine City Hall
Muscatine Community School Dist.
Muscatine Contracting Company
Muscatine County Chapter, American Red Cross
Muscatine County Department of Social Welfare
Muscatine County Home
Muscatine General Hospital
Muscatine County Memorial Park
Muscatine Electric Service
Muscatine Journal
Muscatine Municipal Water and Electric Plants
Muskie Motel
Muscatine Sanitation Department
Muscatine Seed and Supply
Mutual of New York Insurance Co.
McDaniel's
National Cash Register
The National Tea Company
Nietzel's Pharmacy, Incorporated
North Scott Community Schools
Northwest Bank & Trust Company
Northwest Davenport Turner Society
Northwestern Bell Telephone Co.
Oakdale Cemetery Company
Oakwood, Incorporated
One Trip Plumbers
Lee T. Osborn
Othmer Heating & Supply Company
Paetz Christian Supply
Park Commission
Park Lane Golf and Country Club
M. L. Parker Company
J. C. Penney Company Muscatine and Davenport
Pector Industries, Inc.
Peters Motor Company
Pleasant Valley Community School District
Peterson Plumbing & Heating
The Pillsbury Company
Port City Taxi
Priester Construction Company
Prudential Insurance Company of America
Quad-City Pathologists Group
Quail and Company, Inc.
Quint-Cities Coliseum Corp.
Ragan Plumbing & Heating Co., Inc.
Ralston Purina Company
Razor Construction Company
Red Jacket Manufacturing Company
The Red Paint Store
Republic Electric Company
Rice Construction Company
Riefe's, Inc.
Ringland-Johnson-Crowley Co., Inc.
Riverside Industrial Materials
Robbins Electric Company
Robert Hall Clothes
Roemer Machine & Welding Co., Inc.
Rogers Car Wash, Inc.
Roth Lumber Company
Royal Cab Co., Davenport
Ruan Transport Corporation
Ruhl & Ruhl, Inc.
Ryan Hardware
St. Luke's Hospital
St. Joseph Mercy Hospital
S & W Manufacturing Company, Inc.
Sandy's Consolidated, Inc.
Sarah Harding Home
Henry R. Schaefer Company
Schick Beverage Company
Schlegel Drug Stores
Schneider Produce
Scott A.S.C.S. Office
Scott County Extension Service
Sears Manufacturing Company

APPENDIX A-1 (continued)

Sears Roebuck and Company
Second Street Cleaners
Servisoft, Incorporated
Shaw Electric, Inc.
H. O. Seiffert Lumber Company
Sieg Company, Muscatine and Davenport
Silberhorn
Simon and Landauer
Sindt's Grill
Sivyer Steel Casting
S. J. Smith Company
Social Security Administration
Socks-Mason & Cement Contractors
Sound Engineering, Inc.
Spiegel
P. W. Stankee Company, Inc.
Stanley Consultants, Inc.
Star Forms, Inc.
Stark's Super Valu
Mrs. Stevens Candies
J. J. Sultberger
Swan Engineering & Machine Co.
Swift and Company
Syndicate-Hub
Tailor & Company, Inc.
T C R Distributors
Thermogas Company of Clinton
3-M Business Products Sales, Inc.
The Time Shop
Tunnicliff Surveyors & Engineers
Turn-Style Family Center
United States Post Office Davenport, Clinton, Muscatine
United Telephone Company of Iowa
Valeton Cleaners
Valley Broadcasting Company
John D. Van Allen & Son, Inc.
Vogel Roofing & Window Company
Volckman Furniture & Carpet Co.
Wagner's Printers
Welch & Son Transfer and Storage Co.
Walcott Trust and Savings Bank
Walgreen Drug Store
The Walker Agency
Weaver Construction Company
Western Auto Associate Store
The Western Casualty and Surety Company
Western Union Telegraph Company Muscatine and Davenport
Whitehaven Animal Hospital, Cemetery, Restaurant, Tree Plant.
Wilton TV and Appliances
F. W. Woolworth Co. Bettendorf and Muscatine
YM-YWCA - Davenport & Muscatine
Younkers
Zeidler Construction
Walter A. Zlogar, Inc.

Eight Companies - Unidentified

APPENDIX B-1

EMPLOYER RESPONSES CONCERNING JOBS FOR WHICH NO FORMAL EDUCATION BEYOND HIGH SCHOOL IS REQUIRED (PRIMARILY INDUSTRIAL JOBS)

Type of Position	Ave. Number On Payroll Each Month This Year	NUMBER OF EMPLOYER RESPONSES					
		EMPLOYMENT			Qualified		
		Expected Annual Rate			Local Supply Available		
		Increase	Same	Decrease	Scarce	Adequate	Surplus
Auto Mechanic	213	12	15		19	6	
Air Conditioning, refrig., heating mechanic	91	3	5		3	4	
Air Traffic Control	11	1			1		
Anneal-Core Oven Fireman	16			1			1
Appliance Repairman	22	1	1		1	1	
Artillery Mechanic	198		1		1		
Assembly Line Worker	2918	12	8		16	4	
Auto Body Mechanic	9	3	1		3	1	
Automotive Machinist	5		1				
Aviation Mechanic	4	1	1			2	
Boilermaker	5		1			1	
Bricklayer	28	2	2		1	3	
Brick Mason	13	1	1		2	1	
Brineel-Hardness Worker	8		1			1	
Cabinet Maker	3	1	2		1	2	
Carpenter	212	7	12		12	7	
Chemical Worker	82	3	3		1	6	
Cement Finisher	19	2	3		1	3	
Core Maker	90	5	1		5	1	
Craftsman	3		1			1	
Crater	10		1			1	
Crib Attendant	30		1		1		
Cupulo Tender	29	2	3		3	2	
Diesel Mechanic	32	1			1		
Draftsman (Beginning)	2		1		1		
Electrical Journeyman	77	1	1		1	1	
Electrician (lineman)	112	4	2		6		
Electrician (wireman)	339	12	14		24	3	
Electronics Repair	32	1	4		3	1	
Engraver	8		2		1	1	
Experimental Worker	103	1			1		
Fork-lift Operator	124		1		1		
Foreman	10	1	4		4	1	
Foundry (Semi-skilled)	325	1			1		
Foundry (Unskilled)	1014	8	3		7	2	
Gas Journeyman	27	1			1		
Heat Treater	25	1			1		
Heavy Equip. Operator	70	3	4		5	2	
Inspector	392	1	5		2	1	
Iron Worker	10		1			1	
Machine Operator	3950	18	6		22	5	
Machine Repair	4	1			1		
Machinist	530	12	13		21	5	
Mechanic, general	509	10	17		18	10	
Meat Cutter	364	3	1		3		
Millwright	281	8	4		12	2	
Operating Engineer	40	1	2		2	1	
Painter	315	9	18		16	11	
Patternmaker	127	3	8	2	9	4	1
Pipefitter	3	1			1		
Plant Operator	38		3		2	1	
Plasterer	2		2		1	1	
Plumber	131	6	10		11	5	
Plumber (corrugated)	8	1			1		
Printer	334	1	7		3	6	
Production Scheduler	61		2		1	1	
Proofreader	10		1			1	
Radio Technician	4	1			1		
Railway Worker	9		1			1	
Rod-Man (Surveying)	2	1			1		
Roofer	1		1			1	

APPENDIX B-1

EMPLOYER RESPONSES CONCERNING JOBS FOR WHICH NO FORMAL EDUCATION BEYOND HIGH SCHOOL IS REQUIRED (PRIMARILY INDUSTRIAL JOBS)

Type of Position	Ave. Number On Payroll Each Month This Year	NUMBER OF EMPLOYER RESPONSES					
		EMPLOYMENT			Qualified		
		Expected Annual Rate			Local Supply Available		
		Increase	Same	Decrease	Scarce	Adequate	Surplus
Semi-skilled Worker	123		2			1	
Sheet Metal Worker	366	4	8		8	3	
Shop Clerk	16		1			1	
Stationary Operator	75	1	2		1	2	
Steel Worker							
Stereographer	5		1			1	
Street Repair Supt.	4	1				1	
Supervisor	1	1	1			1	
Telephone (Installation)	175	1			1		
Telephone (Lineman)	25	1			1		
Telephone (Miscellaneous)	50	1			1		
Tile and Marble Worker	7	1			1		
Tool and Die Maker	86	2	2		2	1	
Tool Designer	16						
Tractor Mechanic	5	2			2		
Truck Driver	893	7	31	1	18	18	1
Unskilled Worker	3461	22	28	1	26	21	1
Utility (General)	68	1				1	
Utility (Foreman)	22		1		1		
Utility (Mainline)	27		1		1		
Welder	771	10	13		19	4	
Welder (Arc)	365	4	1		5		

APPENDIX B-2

EMPLOYER RESPONSES CONCERNING JOBS FOR WHICH NO FORMAL EDUCATION BEYOND HIGH SCHOOL IS REQUIRED (PRIMARILY SALES AND SERVICE JOBS)

Type of Position	Ave. Number On Payroll Each Month This Year	NUMBER OF EMPLOYER RESPONSES					
		EMPLOYMENT Expected Annual Rate			Qualified Local Supply Available		
		Increase	Same	Decrease	Scarce	Adequate	Surplus
Baker	41	1	1		2		
Bartender	24		5		3	2	
Barber	6	2	1		1	1	
Beautician	24	2	1		1	1	
Bus Boy	46		3			2	
Bus Driver	17		1		1		
Cashier (retail store)	2032	4	5			3	1
Checkroom Attendant	2		1			1	
Cook or Chef	72	4	10	1	8	4	
Dietary Aide (hosp.)	8	1	1			2	
Elevator Operator	6		2			2	
Fireman	134	1	5		3	3	
Florist	1		1		1		
Food Service Manager	164	2	2		2	2	
Gardener - yard care	14	2	2		3	2	
Hospital Attendant	167	3	5		8		
Hostess (food)	12	1	3			4	
Housekeeping	93	2	8		1	9	
Janitor and Maintenance	543	14	37		20	25	2
Kitchen Help	79	1	3		1	3	1
Laborer	305	7	9		14	2	
Laundry and Dry Cleaning	126	7	5		7	6	
Law Enforcement Officer	140	3	1		4		
Meter Reader	59		5		1	2	
Nurse's Aide	739	5	2		4	3	
Plant Security Officer	168	2	13		7	7	1
Photographer	4		2		1	1	
Pricer	2		1			1	
Postal Worker	438		2		1	1	
Reservation Agent	14		1			1	
Reservation Clerk	1		1			1	
Route Salesman	117	2	5		16	8	
Sales Supervisor	8		3			4	
Salesperson (retail)	347	13	13		18	7	
Seamstress	12	1	3		2	2	
Service Attendant	3		1		1		
Station Agent (R.R.)	25	1				1	
Stock Boy (Parts Dept.)	2089	12	13		10	13	
T V Cameraman	5	1			1		
Telephone Information	15	1			1		
Telephone Operator	155		2		1	1	
Teletype Operator	6		2	1		4	
Tire Service Worker	2	1			1		
Truant Officer	1		1			1	
Upholsterer	8		2		1	1	
Waiter or Waitress	147	3	3		4	2	
Water Treatment Wkr.	10	1			1		

APPENDIX B-3

EMPLOYER RESPONSES CONCERNING JOBS FOR WHICH NO FORMAL EDUCATION BEYOND HIGH SCHOOL IS REQUIRED (PRIMARILY BUSINESS JOBS, AGRICULTURAL JOBS)

Type of Position	Ave. Number On Payroll Each Month This Year	NUMBER OF EMPLOYER RESPONSES					
		EMPLOYMENT Expected Annual Rate			Qualified Local Supply Available		
		Increase	Same	Decrease	Scarce	Adequate	Surplus
Bank Clerk, Teller	100	5	5		8	2	
Bookkeeper	249	24	50		22	45	1
Clerk Specialist	16	1			1		
Clerk-Typist	1207	30	53		27	56	3
Data Processing	340	13	11		17	28	
Desk Clerk	4		1			1	
Dispatcher	38	2	8		3	8	
E.A.M. Operator	48		1		1		
General Office Wkr.	1675	25	28		17	28	
Mail Clerk	2		1			1	
Office Machine Opr.	136	9	10		7	15	
Process Clerk	4		1			1	
Purchasing Clerk	3		1		1		
Rate Clerk	4		1			1	
Receptionist	4		4		1	3	
Stenographer	724	23	25		26	23	
Tape Puncher (Bank)	14		1			1	
Farm Worker	2		1			1	
Forester	9		1		1		
Nursery Worker	1	1	1		1		
Operation Worker	10	1			1		

APPENDIX C-1

EMPLOYER RESPONSES CONCERNING JOBS FOR WHICH NO FORMAL EDUCATION BEYOND HIGH SCHOOL IS REQUIRED (PRIMARILY INDUSTRIAL JOBS)

Type of Position	Ave. Number On Payroll Each Month This Year	NUMBER OF EMPLOYER RESPONSES					
		EMPLOYMENT			Qualified		
		Expected Annual Rate			Local Supply Available		
		Increase	Same	Decrease	Scarce	Adequate	Surplus
Air Cond., Refrig.							
Heating Mechanic	14	3	1		4	1	
Appliance Repairman	7	2	2		3	1	
Auto Body Repair	4	1			1		
Auto Mechanic	133	13	16		34		
Assembly Line Worker	682	4	1	1	4	2	1
Boat Builder	303	1	1			2	
Cabinet Maker	6	2	1		3		
Carpenter	281	20	10		32	6	
Chemical Worker	112	3	1	1	3		
Circulation Manager	1		1			1	
Core Maker	34	2		1	3		
Cupulo Tender	2	1	1		1		
Distribution Employee	7	1				1	
Electrician (wireman)	171	5	3		8	1	
Electrician (lineman)	61	2	3	1	10	3	
Electronics Repairman	149	13	8		10	3	
Electric Motor Winder	4		1		1	1	
Engraver	1		1			1	
Foundry Worker (unskilled)	342	3	1		3	1	
Inspectors	1		1		2	1	
Inventory Control	2		1				
Iron Workers	9	1	3		2		
Laborer	2841	32	37		47	21	
Laborer (Foreman)	2	2	4		4	1	
Machine Operator	2509	13	13		18	8	
Machinist	18	6	6		11	1	
Mechanic, general	172	9	7		11	5	
Meat Cutter	93	1	4		4		
Meter Repairman	2		1		1		
Meter Setter	4		1		1		
Millwright	271	8	7		12	3	
Miner	1						
Painter	44	6	5		6	5	
Patternmaker	5		2		4	1	
Plasterer	16	2	4		2		
Plumber	52	4	8		10	1	
Pipefitter	97	3	2		5	1	
Pressman	5		1				
Printer	189	10	8		12	3	
Railway Employee	44		1		1	1	
Repairman	30	6	1		8		
Reporters	40		1		1		
Roofer	7	3			2	1	
Skilled	116	6	5	2	5	2	
Semi-Skilled	692	5	9		10	2	
Sheet Metal Worker	53	3	5		8	2	
Steel Worker	36	3	2		5		
Technicians:							
X-Ray	1		1		1		
Laboratory	55	2	3		5		
Chemical	11	1	1		2		
Service	17	3			3		
Operating Room	50		1			1	
Maintenance	15		1			1	
Insurance	3		1		1		
Dental	12	1					
Electrical	4	1	1		1	1	
Air Conditioning	1	1			1		
Telegraph Operator	9		2				
Transportation Service	97	2	3		3	2	
Truck Driver	520	14	20		15	19	
Welder, Flame Cutter	218	11	5		13	3	1
Heavy Equip. Operator	56	8	7		12	3	
Unskilled Laborer	829	23	18		19	19	2
Warehouseman	141	8	9		9	8	

APPENDIX C-2

EMPLOYER RESPONSES CONCERNING JOBS FOR WHICH NO FORMAL EDUCATION BEYOND HIGH SCHOOL IS REQUIRED (PRIMARILY INDUSTRIAL JOBS)

Type of Position	Ave. Number On Payroll Each Month This Year	NUMBER OF EMPLOYER RESPONSES					
		EMPLOYMENT Expected Annual Rate			Qualified Local Supply Available		
		Increase	Same	Decrease	Scarce	Adequate	Surplus
Bus Driver	159		3	1	4	2	1
Cashier (retail store)	449		11	5	8	8	
Cook or Chef	68		7	1	3	4	
Fireman	30	1	2		3		1
Gardener - yard care	1		1				
Hospital Attendant	19	2	3		3	2	1
Janitor	515	12	49	1	30	30	
Laborer	54	5	3		2	4	
Landscaping	14	1	1				
Laundry and Dry Cleaning	47		3		2		
Law Enforcement Officer	5		1				
Meter Reader	12	1	2		1	2	
Motel & Hotel Employee	14	2	1		2	1	
Nurse's Aide	439	9	7		16	3	1
Plant Security Guard	61	3	5	1	2	6	
Photographer	2		1		1		
Postal Worker	374	1	2		2	1	
Route Salesman	32	1	5		2	4	
Salesperson (retail)	1118	17	35	1	31	18	
Seamstress	393	3	5		4	3	
Service Station Attendant	13		2		1	2	
Stock Boy	394	6	16		8	13	
Tailor	9	3	4		3	3	
Traffic	4	2				2	
Waiter or Waitress	1174	4	16		7	2	
Water Treatment or Sanitation Worker	90	2	2		3		
Management, Shop, Dept.	96	2	11		7	5	
Baker	12						
Bartender	20		4		3	4	
Barber	15		1		1	1	1
Bridge Commission Employee	10		1		1		
Beautician	9	1			1		1
Bus Boy	9		3				

APPENDIX C-3

EMPLOYER RESPONSES CONCERNING JOBS FOR WHICH NO FORMAL EDUCATION BEYOND HIGH SCHOOL IS REQUIRED (PRIMARILY INDUSTRIAL JOBS)

Type of Position	Ave. Number On Payroll Each Month This Year	NUMBER OF EMPLOYER RESPONSES					
		EMPLOYMENT Expected Annual Rate			Qualified Local Supply Available		
		Increase	Same	Decrease	Scarce	Adequate	Surplus
Receptionist	11		6		1	5	
Stenographer	181	11	22		16	15	
Medical Librarian	1		1		1		
Switchboard Operator	1		1			1	
Ag-Related	3		2			2	
Butcher	26	4	1		5		
Packer or Shipper	4		2		1		
Miscellaneous Listings:							
Bricklayers	78	4	2		6		
Cement Finishers	39	7	2		7	2	
Entertainment	16	5	1		6		
Estimator	9	3	1		3		
Executives	15		8		7	1	
Housekeeping Mgr.	1	1			1		
Laundry Manager	1	1			1		
Manager	103	5	18		12	9	
Masons	5	1			1		
Material Man	1	1			1		
Merchandise Markers	3		1			1	
Operating Room Technician	1	1			1		
Policeman	26		1		1		
Service Representatives	3	1			1		
Production Control	2		1			1	
Student Help	25		1			1	
Telephone Installer	35				1		
Telephone Operator	122		1			1	
Accounting Clerk	33	3	4		7	1	
Bank Clerk or Teller	154	5	5		4	7	
Bookkeeper	401	25	63	1	39	47	
Clerk-Typist	579	47	59	2	39	53	
Data Processing	87	7	7		5	7	
Dispatcher	31	2	5		3	3	
General Office Work	294	11	33	1	19	27	
Office Machine Operator	73	5	11	1	5	11	1